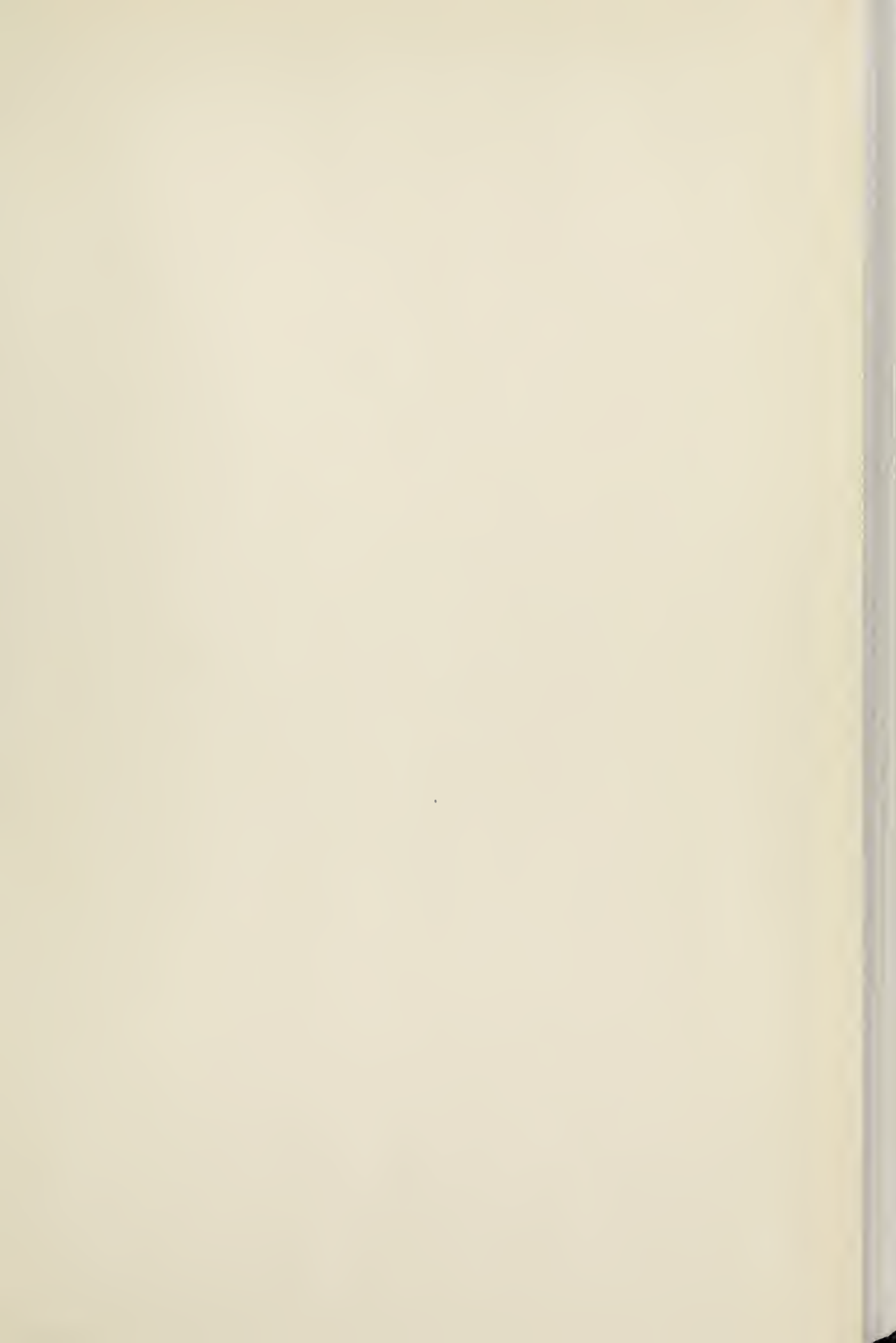
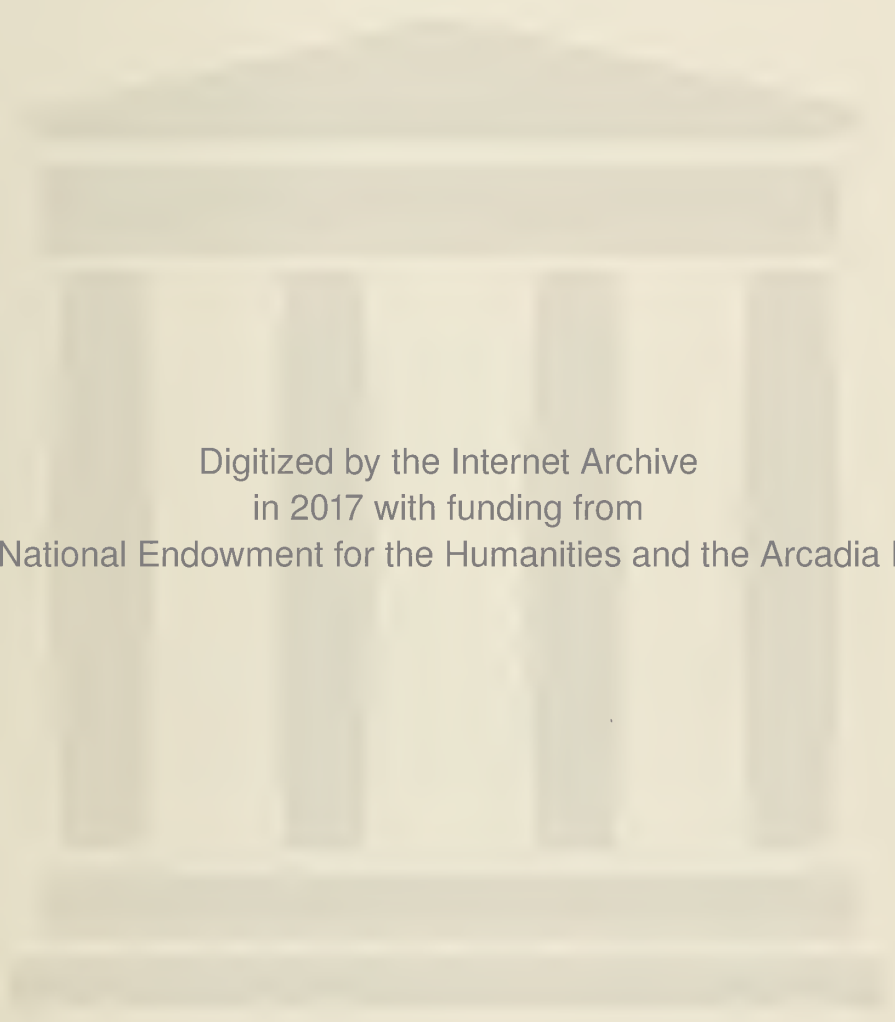


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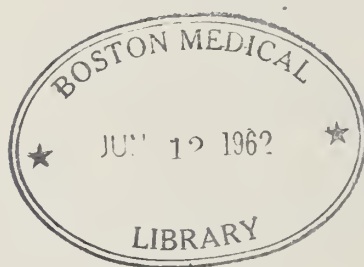
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TRENDS IN MEDICAL EDUCATION*

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A SUPERFICIAL inspection of medical school curricula would lead one to suppose that little, if any, marked change is taking place in this field of education. In the main the pattern of the schools remains what it has been for the last thirty or forty years, in which the development of the scientific method has produced concepts of disease based on the traditional patterns of morbid anatomy and physiology. Since the scientific method is not readily applicable to hereditary and environmental factors which cannot be weighed or measured and subjected to mathematical analysis, studies of pathogenesis and their applications to preventive medicine continue to deal with such factors to the exclusion of others. Since the so-called social sciences have not yet succeeded in making much impression on medical thought and method, the medical student of today is still preoccupied with the ponderable factors in disease which are amenable to analysis by the methods of the physical sciences. He is still thinking principally of disease in terms of trauma by physical agents, infection, nutritional defects, chemical intoxication, senescent degeneration, or neoplastic change.

Slowly, but surely, new concepts have been introduced which make a change in trend as inevitable as tomorrow's sunrise. When Pavlov and Walter Cannon opened the study of emotions to exploration by the scientifically respectable methods of the physiologic laboratory, a movement was started which will unquestionably alter the whole structure of the medical curriculum, and which will in turn profoundly affect the practice of medicine, both preventive and curative. When we begin to think of illness in terms of man's social environment as well as his physical environment many problems which have hitherto baffled medical science will become soluble. The reason for this should be fairly obvious, because the impact of man's social existence is emotional. The disease-producing potentialities of his loves, hates, fears, ambitions, frustrations, hostilities, and aggressiveness may be explored by the scientific method applied to his physiologic processes.

These concepts of disease are not new. They have existed in the common sense of people since the dawn of recorded history; in every land and in every civilization they are to be found in literature and philosophy. They have had their place in practical medicine, but as part of the art rather than the science of medi-

* Delivered at the Nineteenth Annual Scientific Assembly of the Society, September 29, 1948.

cine. It is fortunate in this regard that medicine remained both an art and a science while the scientific method was being perfected in its schools. Because of this psychiatry remained within the sphere of medicine during a period in which it lay outside the scope of science. From the days when the inhabitants of madhouses were regarded as the victims of demoniac possession or witchcraft, when Pinel struck off the shackles and began to care for the bodies of the insane, psychiatry has truly been a part of medicine and has applied the new methods of science to those psychoses which were found to be attributable to the well-known processes of organic pathology. The persistence of the old dual concepts of man's personality kept the psychiatrists immured in their madhouses with their patients and rendered them of little influence on the ordinary undergraduate curriculum.

The major change in trend which I see in medical education is being brought about as a result of the impact of the new psychiatry, which is emerging from the madhouse and taking its share of the work in the general medical and surgical wards of our hospitals. This is bound to have a profound effect on all medical teaching and practice, both preventive and curative. In the madhouse the psychiatrist has struggled long and in vain to unravel the tangled skein of evidence that has brought patients with schizophrenia there. In the general hospitals, working side by side with ordinary medical men, psychiatrists have a better chance to pick up the clues to such maladies at their origin. It is also important that, in doing so, they learn to express their ideas in the ordinary language of medicine, thus removing the semantic barriers to understanding which have hampered psychiatry for so long.

From this collaboration is coming a broader concept of the nature of disease, and a distinction between disease and the pathologic process which brings it about. We should cease to speak of tuberculosis as a disease when it is

only a pathologic process, capable of producing disease only at those times when it interferes with its victim's capacity to adapt easily to environmental conditions. When such adaptation becomes difficult, the patient with tuberculosis has symptoms or signs of "dis-ease" or of illness. Symptoms are those manifestations of illness of which the patient is aware, whereas signs are those which are apparent to other observers. Both symptoms and signs of tuberculosis may appear first in the realm of social activities before the victim has cough, hemoptysis, or a night sweat. For instance, a mother may note her child's listlessness and disinclination to play before weight loss or fever are noted.

To choose another example, let us picture an individual who lacks those qualities of personality which would enable him to get on well with others in the conditions of his employment, leading to the loss of job after job, poverty, adverse physical environment, malnutrition, and finally, somatic disease.

In the first instance, we have an example of a somatic disorder leading to difficulties in social adaptation, and in the second, the reverse of this process. We should re-define disease as follows: A disease exists whenever there are symptoms or signs of difficulty in adapting to the environmental conditions, whether these be physical or social, resulting from a pathologic process involving either somatic or psychologic mechanisms. This excludes from the definition only those uncomfortable situations in which people, who are psychologically and physiologically normal, suffer from extreme or unusual environmental stresses.

Not so long ago a neurotic individual was regarded as having only an imaginary illness, so strong was the preoccupation with somatic disorder and the physical environment. Fortunately, that situation no longer exists. We admit the patient with neurosis as one who is ill and needs help, even though Father Virchow could find no anatomic changes in his body. We

have even come to the point at which organic change may be considered the result of neurotically-induced dysfunction.

Freud made us aware of the fact that the origins of neurotic behavior are to be found in early childhood. The family is the first social unit to which each new individual must learn to adjust. If the psychologic situations within this family unit are unfavorable, if there is disharmony, lack of affection and warmth, if, for any reason there is lack of the feeling of strength through family unity, the seeds of neurosis and future illness may be sown. When we consider the implications of these rudimentary facts of life, which are being so clearly revealed to us, how can we consider any form of organization of medical service which does not have at its foundation a corps of family doctors, trained in the broader concepts of the nature of disease, who will go into the homes of people to care for them and to guide them toward sound foundations of health? It is not enough to have a specialist in pediatrics in a clinic immunize babies against infection, not enough to supervise their nutrition, not enough to view the environment of the home through the eyes of a social worker. The doctor must go to the home himself, or else we must train our social workers to be doctors.

At the present time, in view of the exceedingly small numbers of psychiatrically-trained doctors, it is necessary to keep the few we have in clinics and have them see the situations through the eyes of social workers. Although the effectiveness of this procedure has been well presented in Richardson's book, "Patients Have Families," what we must hope for in our medical schools is that, in working side by side with trained psychiatrists in general hospitals, our general medical practitioners will gain insight and learn the technics of family guidance toward psychologic as well as physical health.

One hears much discussion of the rise of specialists and the decline of the general practitioner. In retrospect it is easy to see what

has happened. The rapid development of knowledge which followed the use of the scientific method made it impossible for any man to acquire all the special skills and technics. Furthermore, the narrow view of pathology, engendered by its restriction to those ponderable factors to which the methods of science could be applied, left the general practitioner inadequately prepared to deal with some of the most important aspects of family practice. He lost one of the most valuable attributes of the old-fashioned doctor who was to families a guide, philosopher and friend.

The only thing we can do under the existing circumstances is to brace ourselves for a fresh start. To begin with, we must make our concepts and teaching of pathology inclusive enough to embody psychopathology and social pathology together with the traditional discipline. At the same time we must revise our clinical curriculum so as to give psychiatry its place in the training of the general physician. Not until we have done that will we have the kind of family doctors we need to deal with all forms of disease at the source.

One of the most noteworthy shortcomings of our educational system has been in the field of preventive medicine, which has been largely confined to the teaching of public health administration. Although this is excellent so far as it goes, our enlarged conception of the pathogenesis of disease reveals an enormous field of preventive practice which cannot be dealt with by public administration, a field in which only properly trained practitioners can succeed. Public health administration has accomplished most remarkable results through public sanitary measures. It has greatly reduced the death toll of communicable diseases, improved nutrition, and reduced the hazards of occupation. It continues to go ahead toward its splendid goal, but when it has achieved all that can be accomplished through its methods, there still remains an enormous amount of

morbidity and mortality with which the practitioner must deal.

What can the public health officer do about hypertension, about peptic ulcer, migraine, colitis, neurodermatoses, asthma, hives, and the whole host of emotionally-induced disorders, which make our people use more barbiturates, aspirin, and alcohol than any other in the world?

There is one other aspect of medical education in which one can discern signs of change. There is beginning to be a shift of emphasis from the bedridden to the ambulatory patient. Such a change is a logical outgrowth of the advances in medicine, which have made possible earlier diagnosis, and which have brought treatment into the field of preventive medicine. It is also a change which will be brought about more rapidly by economic forces, owing to the fact that the construction and maintenance of hospitals has become almost prohibitively expensive. It is much less costly to carry out diagnostic studies on ambulatory patients, who do not have to be housed for the night, or fed, or nursed. We have been slow to recognize this fact and to implement the remedy by extending benefits of group hospitalization insurance to group diagnostic study of the ambulatory patient. Private groups have shown the way.

There is another corollary to the idea that the basic unit of the medical profession should be the family doctor, and that is, that medical students should receive part of their training in the home of the patient. Formerly this was done, through the old-fashioned apprenticeships, and the idea persisted through many years during which medical students operated the outpatient services of maternity hospitals. Not long ago the Montefiore Hospital in New York started the Bluestone plan, under which the congestion of the hospital was relieved by extension of the hospital's services to the home. Some modifications of this plan would give medical students much insight into the environ-

mental factors in which disease originates, and give them needed experience in practical improvisations which home care necessitates, which are not learned in the modern hospital with all its ancillary services.

In the field of postgraduate education, the situation is dominated by the specialty boards. These have, no doubt, accomplished much in the way of raising the average level of competence within the existing specialties, yet it is equally certain that the boards have reached the limit of their achievement in this direction, and that they have within them defects which bear the seeds of their own destruction. These defects are inherent in the rigidity of the prescribed training leading to certification, and in the unrealistic compartmentation of the field of medicine. The evolutionary progress of medicine is so rapid that new groupings will be required if our specialties are going to adapt themselves to change. No matter how much they resist this change their survival depends upon it. No doubt the dinosaur put up a valiant battle for existence against the evolutionary process which made him a fossil. Things that are too brittle to bend will break under the inexorable forces of progress, and even those that can bend will topple over if their bases are too narrow. Only those specialties will survive, in the long run, in which there are men broadly and basically trained to adapt themselves to new conditions.

What do you think will be the result of the impact of the new specialties which cut across the lines of the old? The Advisory Board of the Medical Specialties must have a hard time deciding just what to do with a new specialty such as "Physical Medicine," which extends horizontally against the vertical lines of so many of the older specialties. The problem will be even more difficult when they have to deal with the rapidly growing field of "Rehabilitation," with "Geriatrics," and most of all with "Psychosomatic Medicine," which logically might envelop them all.

The medical schools are keenly aware of these

problems, and they are beginning to exert themselves to keep their curricula from being buried alive in the concrete forms laid down by the specialty boards.

SUMMARY

The limited concepts of organic pathology still dominate our medical curricula because the methods of science are applicable only to phenomena which can be weighed, or measured, and subjected to mathematical analysis. Until Pavlov and Cannon showed the way, psychopathology and social pathology lay largely beyond the scope of the scientific method and for that reason had little effect on medical teaching. However, the impact of our new psychiatry is beginning to be felt, and its teaching is no longer confined to the madhouse but takes place increasingly on the general medical and surgical wards of our hospitals. As a result a much broader concept of the nature of disease is developing. A distinction must now be drawn between a disease and the pathologic process which underlies it, and the environmental stresses which determine the appearance of signs and symptoms have to be taken into greater account, in particular the stresses of the social environment, which induces emotion and determines mood, and thus influences somatic function and structure.

The teaching of Freud shows the origin of neuroses to lie in the relations of infants to the first unit of society to which they have to adapt themselves, the family. The environmental situation of the home must claim greater attention of those who would develop the preventive aspects of medical practice. If we are to progress, a properly trained corps of family physicians must furnish basic medical services.

The achievements of medicine in the field of Public Health Administration have a glorious history, yet we are coming slowly to realize that preventive medicine goes much beyond the scope of the health officer. There is a vast field in which the prevention of illness lies in the hands of the practitioner, working in his office and in the homes of his patients.

The implications of these ideas are being gradually felt in the schools, which are beginning to shift emphasis from the bedridden to the ambulatory patient. One may confidently expect that this movement will continue until the medical student again receives part of his training in the home as in olden days.

The field of postgraduate education is dominated by the specialty boards, which have a rigid structure and an unrealistic compartmentation of medicine, especially in view of the rapidity of change. It has become necessary for the schools to resist these forces which would crystallize their curricula in their present forms.

NEWER CONCEPTS OF INFANT FEEDING*

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It is not surprising that the specialty of pediatrics, which is little more than forty years old, would undergo many changes from its original concepts. This is particularly true in that part of pediatrics which has to do with infant feeding.

For the past forty years infant feeding has been dominated by the idea of extreme regularity which was a natural phase in the development of scientific order out of the ignorance and confusion of the past. Gradually an awareness has arisen that the swing to regularity has gone too far, that the insistence on a rigid routine ignores the variation in functional capacity of individual babies, and that it creates, at least temporarily, frustration in those who have difficulty conforming to the schedules. Equally significant are the long-lasting harmful effects on countless mothers who have been encouraged to become tense, authoritative and intolerant in their attitudes toward their children.

It is almost axiomatic in medicine that when new ideas and technics are introduced their use is carried too far. With the introduction of the sulfonamide drugs there came a great wave of enthusiasm and they were used in almost every case of infection. So it is with penicillin, streptomycin, etc. We might speak of it as a pendulum which swings too far in each direction but eventually comes to rest on a middle ground.

Now the pendulum has begun to swing in the opposite direction from regularity and exactness in infant feeding. Various physicians, parents and psychologists, in rebellion against arbitrariness, are experimenting with the so-called

"demand schedule," according to which the infant is fed whenever he appears to be hungry (fig. 1). The clock is determinedly ignored.

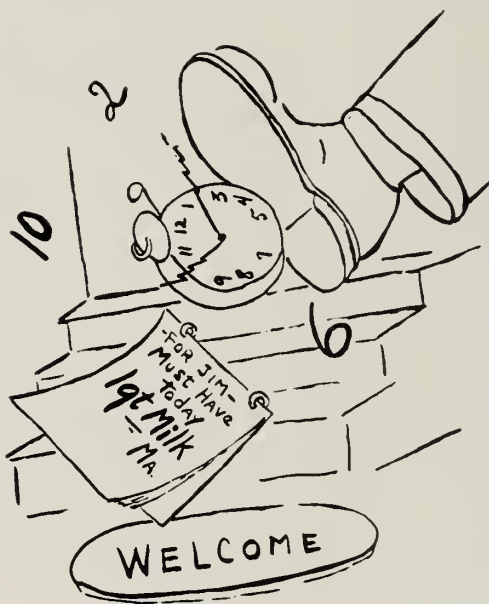


FIG. 1. The clock is no longer master. Absolute ritualistic adherence to schedule is not deemed advisable.

Only time will show where the pendulum will ultimately come to rest. Neither extreme is sound. The clock is a useful servant but a harsh master. It must be remembered that until the twentieth century the young of the entire race, in common with the young of the rest of the animal kingdom, always determined their own feeding time without disastrous results.

The pediatric teaching of the very recent past was rigid in the insistence of regularity of feeding, both in relation to the time the baby should be fed and the amount he should receive at each feeding. We need only to refer to textbooks on pediatrics to find schedules for a 3-

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hour basis during the day and 4-hour intervals at night. This is to be followed to a given age, say 3 months, at which time the baby can be placed on a 4-hour schedule. Not only is this insisted upon, but the amount the baby is to be given at each feeding at various age levels is to be found in these textbooks (fig. 2). The mother has to set her alarm clock for the night feedings and also watches the clock carefully during the day so that the baby will be fed "on time," and she has to stick with him until he has drained the last drop from the bottle. This is being done without any regard for the significant individuality of different babies. Is it any wonder that nervous, tense, high-strung mothers are given anxiety neuroses? And is it surprising that many babies develop poor appetites or indeed lose all natural desire for food because their appetite never has a chance? It has been my experience, as well as that of many other observant pediatricians, that such battles with ritual lead to tension and later maladjustments in these little people which persist as they grow and develop through childhood and adolescence, and extend into adult life.

My belief now is that any well baby has the inherent capacity within himself to determine not only when he wants to eat but the amount he wants to eat at any one time.

It was formerly taught that the 2:00 a.m. feeding was a habit and that any baby who weighed at least 7 pounds should not be given that feeding. This dictum was without regard as to whether he wanted it or not. That can be done while he is in the hospital, but as soon as he goes home and cries for food at 2:00 a.m. it is far simpler to feed him than it is to let him "cry it out," until finally his hunger pain subsides or he becomes too exhausted to cry further. His exhaustion is certainly not going to sweeten his personality. In my experience babies will give up this early morning feeding at a very early age if allowed to fill up on the earlier feedings, or, in other words, as soon as they can afford it, they will give it up.

No one will gainsay the fact that some semblance of a schedule is of great help to the young mother who cares for her own baby and also does all of her own housework. For my part I can see no reason why she should not be given a skeleton schedule and apprised of the fact that the schedule is for her convenience primarily and to guard against excessive overfeeding and furthermore, that it is no absolute moral law, nor that violation is bound to lead to drastic retribution.



FIG. 2. Question: Who suffers more, the rudely awakened infant whose peaceful sleep is interrupted or the harassed mother, slave to the clock?

We must realize also that at least a part of this generation of mothers is imbued from their own infancy with the moral obligation of regularity and cannot be suddenly cast adrift with the advice to feed the baby when he is hungry, without feeling insecure. To these mothers we must give a flexible rather than a rigid scheme to follow, which will not interfere with the individual capacity and desires of the baby.

I usually tell these tense young mothers, who are afraid that their baby won't wake up in time

to feed or that he won't take enough when he does nurse, that it is almost as natural for a baby to suck and obtain his food as it is to breathe, and one wouldn't think of interfering with his breathing.

There has been one big difficulty in my experience with the "demand schedule," and that is overfeeding. Certain babies, as we all know, spend a great deal of their time crying and sucking their fists during the early weeks of life.



FIG. 3. Helping the infant help itself. The soft touch of the breast to the cheek is the normal stimulus to the rooting and sucking reflexes.

Some mothers think their baby is hungry and so they have a bottle in his mouth all of the time. Very soon such mothers must struggle with a baby who has a gastritis with vomiting, and perhaps also diarrhea. Instead of making the crying less she has made it worse and has a sick baby in addition. Babies will cry from a dozen or more causes, and hunger is only one. To offset this difficulty I have tried to use a "modified demand schedule," telling the mother that she had better not feed the baby closer than 3 hours, but to feed him whenever he awakens

after that. Then one can be reasonably sure that his stomach has thoroughly emptied from the previous feeding before more food is taken.

Aldrich has pointed out in his writings on the subject of infant behavior that the first feedings are of great importance. He points out that at the time the normal baby is born he is equipped with several adequate reflexes, or behavior patterns, which are designed to make him a successful feeder from the breast. The most obvious of these reflexes are those concerned with the actual getting of food: rooting, sucking, swallowing, and satiety reflexes.

The rooting reflex is the first one of these to come into play. When a baby smells milk, he moves his head around and attempts to find its source (fig. 3). If one cheek is touched by a smooth object he will turn his mouth toward that object and open it in anticipation of grasping the nipple. This reaction gives an obvious clue as to how milk should be given to the newborn baby. His cheek applied to his mother's breast will start him rooting for the nipple with his mouth. Ignorance on the part of nurses or mothers as to the nature of this basic reflex, or pattern, can start feeding trouble. Most nurses, when they bring the baby to the mother, will grasp the cheek and try to turn the head around toward the nipple (fig. 4). The baby, feeling the pressure of the hand, tries to turn toward the nurse's palm instead of toward the breast. A fight then ensues; the baby cries, and it is said that he "won't nurse." This is only because his natural response is prevented. Would it not be well to have our nurses taught the proper simple technic of putting the baby to the breast for the first feeding of his life to permit his first natural reflex to be gratified with success?

The sucking reflex, of course, is called into action just as soon as the baby grasps the nipple. This enables him to draw the milk to the back part of the throat, where it is routed down to the stomach by the highly complicated swallowing mechanism.

The other factor in his nursing equipment which makes him efficient as a feeder is his ability to know whether or not he has had enough. This is what Aldrich calls the satiety



FIG. 4. Making life unnecessarily hard. The touch of the palm is on the wrong side, and the first natural reflex response is ungratified with disappointment vocally expressed and sucking pleasure impaired.

mechanism. The existence of such a mechanism might be questioned by some, since its workings are entirely unknown, but some sensation or reflex must have told countless generations of babies when to continue and when to stop feeding.

At this point I should like to comment on "spitting up" or vomiting in some babies, and cite as a possible cause the common practice of "burping," the term which is used for trying to make the baby eruct gas at intervals during and after his feedings (fig. 5). The nurses in our hospital nurseries are taught that this procedure must be carried out, and all the baby books written for mothers stress its importance. No doubt it may at times serve some useful purpose, but often it is carried too far.

It is a common practice of some of our practical nurses and mothers as well to stop the baby at the end of each ounce of formula consumed, throw him over her shoulder, and thump him on the back until he eructs gas. It would seem to me far better when the baby is sucking and taking his formula well to let him continue without interruption until he is satisfied and then to let him go off to sleep as he wants to do. If he shows discomfort then there could be some value to the procedure.

A mother of twins recently complained to me that the babies at $2\frac{1}{2}$ months of age began vomit-



FIG. 5. Let the baby decide. Forced "burping" makes him an air swallower and may cause vomiting. If the baby stops sucking let him "burp," but he should be allowed continuous uninterrupted sucking so long as he is comfortable.

ing most and sometimes all of their feedings. I asked her about "burping" and she said, "Oh, I never put them down until they get up a gas bubble. One of them does it very readily, but it takes the other one 10 or 15 minutes at times to get up his bubble." We convinced her that

she should allow them continuous and uninterrupted sucking until they seemed satisfied and then let them alone if they were comfortable. That was the end of their vomiting. This same advice has been given to countless other mothers in the same predicament with the same gratifying results. It has occurred to me that it takes reversal of peristalsis and the diaphragm to erupt gas the same as it does in vomiting, and that the two processes therefore are similar except in degree. Perhaps this explains the vomiting in some cases, but conceivably it could also be due to resentment on the part of the baby.

Between 3 and 4 months of age the baby begins to make a decided change in his mouth behavior. When food approaches the lips, he opens his mouth and the tongue actively takes the nourishment back, so that swallowing is easy. This obviously marks the time when he is ready for solid food. When this feeding is first attempted the mother is advised to "take it easy." The baby is sure to be doubtful about the first few mouthfuls. He may wrinkle his brow, screw up his face, and finally place his tongue against the roof of his mouth, whereupon the food oozes out on his chin. This is understandable, for he is accustomed to only liquids in his mouth. He doesn't like the texture of this new food, nor does he understand the spoon instead of the nipple. If the mother is cautious and stops at the first sign of disgust or bewilderment in her baby, he will be enthusiastic about eating (in contrast to drinking) in a few days, or a week or two. However, if she is determined that he must eat as ordained by the doctor and forces him, the next day her luck is no better, and it will not be long until he will refuse his bottle as well as the solid food (fig. 6). Resistance once thoroughly aroused spreads to other areas. This, I believe, throws light not only on the development of feeding problems but also on other behavior problems as well.

So we tell mothers that there is no hurry. It may take days or perhaps several weeks for her baby to get familiar with and enthusiastic about his new food. The important thing is for him to

like it eventually and not take it because he is forced. He must be eager for it or only trouble lies ahead with feeding and in other things as well.



FIG. 6. Force engenders resistance and thereby creates unnecessary and avoidable feeding problems. A forced food becomes an objectionable food.

It is a very common thing for feeding problems to begin around the age of 1 year. At this time the child develops a strong desire to exercise his power of choice. Also he has a growing egotism and negativism, which are normal and desirable. He is not so eager for his food because his needs are not so great; his rate of growth has slowed considerably, and therefore his caloric needs are lessened. Mothers should be warned of this in order that when the normal child refuses food it is probably because he doesn't need it. If she prepares a well balanced meal and he doesn't consume it all, he should be let alone. He'll get all he wants and needs if allowed his own choice. However, if she forces him she may turn whatever she forces into an objectionable food.

Another very common time for feeding problems to arise is after an illness. A few days

of illness will take several pounds off the baby and all the color out of his cheeks. The mother often will start trying to get the color back in his cheeks and the fat on his ribs the moment the fever is gone. He will resist the food, and then she forces him and he stays thin and pale longer than necessary. At the end of each child's first illness the physician should remind the mother that it may take several days for the appetite to recover and that if she will let his appetite be her guide he will soon resume his former rate of growth, get his color back, and regain the lost weight. As Osler has said, "It is often most important to have the courage to do nothing."

Children will often use mealtime as a time to persecute their parents, especially if undue attention has been given to their eating (fig. 7).



FIG. 7. "Ain't it fun to watch 'em fuss." Refusal of food is one of the child's most powerful weapons and an effective attention-getting device.

They discover early that fussing and refusing food is an effective device for getting attention.

I recall a story illustrating this point which one of my close friends told me recently, whose boy now is a senior in Yale University. This boy was always made to eat what his mother

thought he should have before he was taken out of his high chair, whereupon he was then given a large iced-tea glass full of milk. He had to consume this eventually, and was known to carry it around the house until almost the next mealtime when he would finally get it all down. Incidentally, he was always very thin and still is. One day the mother was out for lunch and the father had to prepare his lunch for him. This he did and put it before him in his high chair with no comment and walked out of the room. He went back a few minutes later and the child hadn't touched a mouthful. The father told him quietly that he would be back again in 15 minutes and he could then get out of the chair whether he had eaten anything or not. Soon the child began crying at the top of his voice. The father returned again and asked what had happened. The child replied, "Nothing, Daddy, but I want Mother to make me eat!" He had gotten so used to it that he thought such a performance was requisite to a meal. He probably had no semblance of a desire for food because his natural appetite had never had a chance. The insistence of his consuming a great deal of milk might have had some bearing on this as I shall bring out later.

There is hardly a week goes by that some careworn mother or grandmother doesn't bring a child to see me with the complaint, "This child doesn't eat a thing" or "He doesn't eat enough to keep a bird alive." These children are usually past 1 year of age and frequently 4 or 5 years old.

I try to take a very careful history, especially as to when he began eating poorly, and do a good physical examination, including a complete blood count, urinalysis, tuberculin patch test, as well as the Wassermann reaction and sedimentation rate. This is done because usually these patients have been tossed about from doctor to doctor, and while I find that the overwhelming majority of poor appetites have a psychologic basis, not infrequently it is discovered that disease is also a factor. Thus it is never safe to assume that the child needs only a

reasonable psychologic approach. I recall an 18-month-old child who slowly lost her appetite, and her tuberculin patch test was positive. A roentgenogram of her chest showed an intense tuberculous lesion in one lung. The mother, who appeared well until the birth of this baby, developed open tuberculosis and eventually had to have a part of a lung removed. Another case of a 6-year-old boy sent to me last year because of poor appetite gave every indication of having a behavior problem because his physical examination and tests at that time were entirely normal. Subsequent events proved, however, that I was wrong, because he died before the end of the year of Addison's disease (adrenal cortical insufficiency).

I always ask the question in the history: "What about milk?" The parent will say, "He is a great milk drinker; he takes a quart or two per day." Little wonder he won't eat anything else, because there isn't room for it.

Another parent will say, "He doesn't want his milk but I make him take it." I had such a case last week. The mother and father are separated, and the grandmother is custodian of the 4-year-old girl. The grandmother said, "She eats nothing, but I make her take a quart of milk a day with a raw egg in it." The baby was a beautiful specimen physically, and all of her tests were normal. I got the grandmother to cease urging food and took the raw egg and milk away, and now she is ravenous for all foods. Later on I shall permit her to have skimmed milk and perhaps even whole milk.

Rarely one sees a child who won't eat and who is thin and constipated and has headaches and frequent attacks of abdominal pain with vomiting and perhaps diarrhea. The mother has been forcing milk, but when asked if she drinks milk herself, she says, "No, it gives me a splitting headache, and I am sick for 2 or 3 days." Milk is probably just as toxic for her child as it is for her. The solution to this problem is obvious: take away the milk.

I have the notion that in our drive toward

better nutrition milk has been emphasized too much. The dairies, nutritionists and physicians have made some of these mothers too serious about getting in a quart of milk a day. A pint is enough anyway and there are a fair number of children who do better on no milk at all and a larger number who will do a better job of their own nutrition if they are allowed only skimmed milk.



FIG. 8. The goal! Health, hunger and happiness are inseparable.

In conclusion, I should like to present several principles which should help mothers enjoy their babies more and in turn make the babies happier with their parents.

1. See that the baby is placed to the breast properly for his first feeding in order to gratify his first reflexes.
2. Introduce new foods cautiously.
3. Pay attention to his desires for different foods.
4. Don't make him eat, but encourage him to want to eat by letting his natural appetite come to the surface.
5. Serve him less than he will eat, not more.
6. Don't offer bribes for eating, such as dessert if he finishes, or "eat to keep well," or to please his mother. Just don't ask him to eat.
7. Let him feed himself just as early as possible (fig. 8). It is easier to clean up a mess than to live with a neurotic child.

(Continued on page 57)

NEWER DEVELOPMENTS IN ALLERGIC ECZEMATOUS DERMATITIS*

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ALLERGIC eczematous contact-type dermatitis is not only one of the most common dermatoses but probably also one of the more common diseases in general. Despite its rather complicated name it is very simply that type of skin disease with which we deal when we see a case of contact dermatitis due to poison ivy, penicillin or hair-dyes. It is characterized by a papulovesicular erythematous eruption and histologically by intraepidermal edema and vesiculation.

THE MECHANISM OF SPREADING OF THE DERMATITIS

It seems remarkable that despite the fact that this disease is so common and is seen by almost every physician, whether in general practice, or in specialty practice, it was only recently that certain ideas about it which had existed for many years were shown to be misconceptions. These misconceptions for a long time have led to certain widespread errors in management. For example, in most cases of allergic eczematous dermatitis due to plants such as poison ivy, the patient is routinely given directions not to contact the affected areas with his hands in order to avoid further spreading of the disease, and to scrub the affected areas lavishly with soap and water in order to remove any remaining traces of the allergen in order to avoid further spreading of the disease.

Both of these directions are based on misconceptions regarding the mechanism of spreading of this disease. Why is there no objection to the patient's coming in contact with the affected

areas? Because carefully executed studies by Sulzberger and Katz¹ and Pratt and Corson² have shown that the blister fluid in allergic and non-allergic dermatitis does not contain any biologically demonstrable amounts of the causal allergen or irritant. For instance, if one aspirates the fluid from vesicles in cases of poison ivy dermatitis and then applies this fluid under a semioclusive patch to the normal unaffected skin of the same patient or to the skin of other persons hypersensitive to poison ivy one cannot produce any demonstrable skin changes. If any trace of active allergenic material were present in the vesicular fluid one should be able to elicit reactions with it in susceptible persons. Obviously it is desirable that a patient with any sort of dermatitis should, as much as possible, keep his hands away from the affected areas in order not to further damage the already diseased skin; nevertheless, it is a fact that there is no danger of the patient's spreading the disease by touching normal skin areas with his hands after he has touched the affected areas.

This brings up the question as to why allergic eczematous contact-type dermatitis including poison ivy dermatitis behaves in such a peculiar manner, where at times new areas of dermatitis still appear on different regions of the skin days and occasionally 2 to 3 weeks after the original exposure and after the occurrence of the initial eruption?

No definite and unequivocally proven answer can be given to this question. The best explanation at present available for the phenomenon of spreading for days to weeks is that unless a new exposure to the allergen or allergen-contaminated articles of clothing, etc. takes place, all the eventually involved sites already

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became contaminated at the time of original exposure or shortly thereafter, i.e., usually before the appearance of the first clinical signs or symptoms. This contamination can take place through direct contact of the sites with the allergen or with contaminated pet animals or articles of clothing, etc., or through spread of the allergen with the contaminated hands. One of the proofs for spread of the dermatitis by contact of the allergen-contaminated hands with various skin areas is the very frequent involvement of the face, particularly the eyelids, and of the genital region in cases of allergic eczematous dermatitis. In plant dermatitis, for example, the penis in men and the inner aspect of the thighs in women are very common sites of involvement. The hands may not show any signs of involvement, because they, and especially their palmar aspects, are more resistant to the action of allergenic materials than most other skin areas.

Although this may explain the spreading of the eruption to various sites and body regions, we still have not answered the question as to why some areas of dermatitis show up only days or in rare cases even weeks after exposure. This phenomenon can be attributed to differences in the level of sensitivity in different skin areas and perhaps also to the variations in the quantity of the allergen which has been deposited on these skin areas. The site which develops dermatitis days after the original exposure probably is a site where, at the time of original exposure, hypersensitivity to the allergen was either nonexistent or was of such a low degree that an allergic reaction could not immediately take place. However, subsequently and due to the exposure to the allergen, the level of skin sensitivity to the specific allergen rises, perhaps especially at the contaminated sites and eventually becomes sufficiently high to permit a reaction with the extremely minute quantities of allergen which are still available in or on the skin.

NONSPECIFIC AND SPECIFIC PREVENTION AND TREATMENT

The work of Howell³ and others has adequately demonstrated that prevention of poison ivy dermatitis with soap and water, potassium permanganate, hydrogen peroxide, etc., at already contaminated sites can be achieved only up to about 5 minutes after contamination. However, if there is an excess of allergen at the site, washing more than 5 minutes after contamination may remove this excess and thus forestall or reduce spread of the dermatitis to other skin areas. Once the clinical lesions have made their appearance, soap and water scrubbing not only is useless in preventing the disease but is potentially harmful because of the known adverse effects of soap on acute eczematous processes in general. The conclusion from this is that soap and water do have their place during the period soon following exposure but even then they tend only to achieve removal of excess allergen and to prevent spreading of the allergen rather than to prevent the dermatitis at the already contaminated sites. However, as a rule it is useless to use soap and water once clinical signs of dermatitis have appeared.

The question of specific treatment in the acute stage of allergic eczematous dermatitis has been debated back and forth for years; it is of special importance in dermatitis due to plants, vegetables, flowers, and their derivatives, because at the present time, among the many contact-type allergens, extracts of only these particular allergens are commercially available.

In my opinion injections or oral administration of the specific, commercially available allergenic extracts should not be used in the treatment of the acute dermatitis. There are two main reasons why no such specific therapy should be employed during the acute stage: (1) There is no conclusive proof that such treatment with the commercially available extracts is beneficial. On the contrary, there is considerable evidence that in some cases the specific treatment produces exacerbation and prolongation of the

dermatitis and at times also produces an erythema multiforme-like eruption superimposed on the eczematous process. (2) Equally important in this connection is the fact that there is complete lack of standardization of the commercially available extracts. As Howell⁴ and Brown⁵ have shown, there are not only tremendous differences in the potency of extracts prepared by various manufacturers, but even different batches of extract made by the same manufacturer often vary in their potency. Perhaps recent work by Keil, Wasserman and Dawson⁶ and Dunn and Smith⁷ on the chemical constitution of the allergenic component in poison ivy will in the future help to facilitate some sort of standardization of commercially available Rhus extracts.

Although specific treatment with commercially available extracts during the acute stage of allergic eczematous dermatitis due to plants, vegetables, flowers, and their derivatives must be considered useless or even potentially harmful, specific preventive treatment brings about some reduction in sensitivity in many cases. The estimates vary as to the proportion of cases in which this can be achieved. I have made it a rule to attempt specific preventive treatment only in selected cases in which a high degree of sensitivity to the particular plant exists and exposure is almost certainly unavoidable. All the previously mentioned objections to the available commercial materials, as regards lack of uniform standardization, apply here too. However, as long as these extracts are administered during a phase when no acute dermatitis is present, the dangers of a severe flare-up or dissemination appear to be less serious.

In recent years I have employed almost exclusively the method of hyposensitization by mouth, using gradually increasing doses of the plant allergen in corn oil, as suggested by Shelmire.⁸ This is a rather tedious procedure, since the patient has to take the allergen over a period of many months. Treatment should start 3 or 4 months before expected exposure and should

continue through the period of exposure. Still, as hyposensitization should be used only in cases in which it is clearly indicated, this seems to be the method of choice. When the oral method of hyposensitization is used, the patient should be given a routine schedule according to which he can gradually increase the dose, but the patient must be told that he should contact the physician immediately in case of any beginning undesirable side-effects. The side-effects observed during the oral hyposensitization include flare-ups of old sites of dermatitis, vesicular eruptions of the hands, labial, perioral and perianal itching and eruptions, and gastrointestinal upsets. In cases in which untoward reactions occur the dose should be lowered to $\frac{1}{2}$ to $\frac{1}{10}$ the last previous dose.

THE PRESENT STATUS OF ANTIHISTAMINIC DRUGS IN ALLERGIC ECZEMATOUS DERMATITIS

When the so-called antihistaminic drugs first became available it was hoped that they would be effective against urticaria as well as against allergic eczematous dermatitis. Although these hopes were to a large extent fulfilled as far as urticaria is concerned, the antihistaminic drugs have in general been of limited usefulness in allergic eczematous dermatitis. Whether administered by mouth or by topical application in the form of creams, ointments, etc., these drugs have no clinically noticeable direct effect on the eczematous lesions; i.e., they do not prevent the development of new eczematous lesions nor lead to speedier involution or evolution of existing lesions. However, in many cases of eczematous dermatitis the antihistaminics are of therapeutic value against itching. This antipruritic effect occurs after both oral and topical use.

Somnolence, which is the most common and probably also the most disliked side-effect of the majority of antihistaminics, is one which in cases of allergic eczematous dermatitis is often very useful. Many of these patients are unable to sleep or to get any rest due to the extremely

severe itching; and in some of them it is wise to administer deliberately one of the drugs which tend to produce sedation, particularly at night. It is of great interest that the antipruritic effect and the sedative effect of antihistaminic drugs by no means go parallel in all cases.

A few words should also be said about the topical use of antihistaminics in the form of solutions, lotions, creams, ointments, etc. My own experience is limited to the topical use of pyribenzamine and thephorin; i.e., I have had no experience with creams containing benadryl, histadyl, and other antihistaminics. Pyribenzamine cream has been disappointing in allergic eczematous dermatitis, but it is sometimes highly effective in some other dermatoses. Recently I have had the opportunity to use thephorin, 5 per cent in carbowax ointment, and this appears to be quite promising as an antipruritic application in some cases of allergic eczematous dermatitis. The antihistaminic drugs, incorporated in different vehicles, still have to be compared with each other, and, until after this and many additional investigations have been done, the role of antihistaminic drugs as topically applied agents in allergic eczematous dermatitis will not be sufficiently well defined to permit any definite conclusions.

I would like to call attention to the fact that these antiallergic or antihistaminic drugs can themselves cause eczematous allergic sensitization of the skin. This should be kept in mind particularly when antihistaminics are used as topical remedies (Sulzberger, Baer and Levin⁹). Unless the possibility of such sensitizations is kept in mind, the patient's eruption may go from bad to worse while under treatment with these preparations.

The inability of antihistaminic drugs to produce any direct clinically evident effect on the lesions in allergic eczematous dermatitis really should not cause too much of a surprise, because, although we know very little about the mechanism producing this disease, there is no evidence that histamine plays a role. The beneficial action of the so-called antihistaminics

against itching in some cases also cannot be based on their antihistaminic action for the same reason. It is now known that at least some of the antihistaminics have a very marked local anesthetic effect. Indeed the work of Leavitt and Code¹⁰ has demonstrated that a 1:1000 solution of benadryl has an anesthetic action equal to that of a 1:400 solution of procaine. It would seem then that the antipruritic action of topically applied antihistaminics in allergic eczematous dermatitis is largely, if not entirely, due to their local anesthetic effect; and their antipruritic action after systemic administration can also, at least in part, be attributed to a lowering of the threshold of itching through anesthetic action. There are other actions which are exerted by antihistaminic drugs and which may become of interest in connection with allergic eczematous dermatitis, such as the inhibiting action of pyribenzamine on hyaluronidase as reported by R. L. Mayer.¹¹

In summary one can say that the antihistaminic drugs have contributed somewhat to the therapy of allergic eczematous dermatitis because of their more or less marked antipruritic action in some cases. However, the many drugs which are now on the market, whether applied topically or systemically, all have failed to produce any preventive action or any direct effect on the clinical lesions.

BIBLIOGRAPHY

1. SULZBERGER, M. B., AND KATZ, J. H.: U. S. Nav. M. Bull., 1943, **41**, 1258.
2. PRATT, A. G., AND CORSON, E. F.: Arch. Dermat. & Syph., 1945, **51**, 316.
3. HOWELL, J. B.: Ibid., 1943, **48**, 373.
4. HOWELL, J. B.: Ann. Allergy, 1947, **5**, 219.
5. BROWN, G. T.: M. Ann. District of Columbia, 1947, **16**, 675.
6. KEIL, H., WASSERMAN, D., AND DAWSON, C. R.: J. Exper. Med., 1944, **80**, 275.
7. DUNN, J. E., AND SMITH, B. H.: J. Invest. Dermat., 1946, **7**, 185.
8. SHELMIER, B.: Ibid., 1941, **4**, 337.
9. SULZBERGER, M. B., BAER, R. L., AND LEVIN, H. B.: Ibid., 1948, **10**, 41.
10. LEAVITT, M. D., JR., AND CODE, C. F.: Proc. Soc. Exper. Biol. & Med., 1947, **65**, 33.
11. MAYER, R. L., KOCHOLATY, W., AND STANTON, D.: Ibid., 1948, **67**, 529.

JOSEPH GOLDBERGER AND THE MYSTERIOUS HUNGER

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T was Cesare Lombroso, the squat, bespectacled doctor, more interested in criminology than in medicine, who had the first inkling into the mystery of pellagra. It was just a minute glimpse, and he failed to do very much about it. He believed that pellagra was a disease caused by eating spoiled maize, that it was not communicable, and that in some way it was connected with the diets of the poor. But Cesare Lombroso was more interested in the workings and cunning of the criminal mind than he was in the diets of the poor, and while the impoverished Italians in southern Italy were dying of the mysterious disease that etched its red signature on the face and hands of its victims, squat, little Lombroso went about noting that criminals had thick lips and bulging ridges above their eyes.

Many years were to elapse before another Jewish doctor was to take to the very thin trail that Dr. Lombroso had scratched out in the midst of a thousand and one duties that interested him far more than pellagra. The year was 1914 and the doctor was Joseph Goldberger, a member of the United States Public Health Service, whose physicians had contributed much to the advancement of public health not only in the United States but throughout the world. Pellagra was becoming a very serious problem in the South. Dr. Goldberger had received orders to go south and attempt to find out what caused the disease and how it could be cured and prevented.

The fact that pellagra caused sick minds as well as sick bodies first interested Dr. Lombroso in this disease. Dr. Lombroso was a psychiatrist and he met many pellagrins in his hospital.

Dr. Goldberger was not a psychiatrist, but he knew that most of his pellagrins would be found in insane asylums. So it was in the various state asylums of the South that he made his first rounds.

It was there that he learned that pellagra was not a 'catching' disease, that in spite of the fact that nurses, doctors, and attendants came in daily intimate contact with the crazy pellagrins not one of them had ever caught the disease.

Dr. Goldberger then made a searching study of the life histories of the pellagrins, and he found that all of them were poor, that their diets were of the meanest sort, and that they all ate practically the same types of food. Here was an inkling, a definite clue into the mystery of the disease that robbed its victims of their wits and reddened their skins and finally sent them to their graves.

Joseph Goldberger was born in what was later to be known as Czechoslovakia on July 16, 1874. He spent the first 8 years of his life in his native country, emigrating with his parents to New York City in 1882. Here he received his public school education on the East Side, the Ghetto, from which came many of the great in this country, and like most East Side boys he went to the College of the City of New York. He later entered Bellevue Medical School, from which he was graduated with the degree of Doctor of Medicine in 1895.

For two years after his graduation he practiced in New York City, and during this time he was a member of the Third Medical Division of Bellevue Hospital. But he soon tired of a practice of bellyaches and sore throats on the

East Side. He moved to Wilkes-Barre, Pennsylvania, where he remained in practice from 1897 to 1899. The latter year he took an examination, passed with flying colors, and was appointed assistant surgeon in the United States Public Health Service, at that time called the Marine Hospital Service. Dr. Goldberger was more interested in research than in general practice, and he felt that as a member of the Public Health Service he would be in a better position to serve his profession.

During the 15 years that elapsed between his appointment to the Service and the year he was commissioned to look into the pellagra problem, Joseph Goldberger had been sent on missions of medical research to many parts of this country as well as to Puerto Rico and Mexico. He had gained an enviable reputation for himself as a careful and meticulous worker, and when pellagra had become a serious problem he was the logical man to appoint to study this scourge.

The first and greatest problem that Goldberger sought to solve was whether pellagra was communicable. Like Dr. Walter Reed, whom the same Government had sent down to Panama more than a decade previously to fight yellow fever, Dr. Goldberger had his brave volunteers, men who were willing to sacrifice their lives to prove or disprove a theory. Sixteen of these volunteers offered themselves as human guinea pigs. Under their skins and into their muscles, Joseph Goldberger, stoop-shouldered and hawk-nosed, with the burning eyes of a trail blazer, injected the blood of crazy pellagrins. He even fed them skin scales, scrapings from the nose and throat, urine, feces' condensations from the 'craziest' patients with the most advanced cases. But not one of them developed a case of pellagra. What Dr. Goldberger asked others to do he also did himself. He swallowed all sorts of vile concoctions made from the blood, the urine, and feces of the most advanced cases, but he remained free from the disease.

So Dr. Goldberger convinced himself and

other physicians that pellagra was not a disease caused by a germ. It took him a year to popularize this new conception, but he was no nearer the truth than he had been before. If pellagra is not caused by a germ, then what does cause it?

Back he went to the insane asylums, back to more probing into the private lives of pellagrins, crazy and otherwise. The more he examined his patients the more he was impressed with the fact that they all had been impoverished subsisting on the meanest of foods—food that barely kept them alive. In food he felt lay the answer to his problem.

Pellagra was a disease due to eating the wrong kinds of food. This was only a theory, and it would have to be proved. To Mississippi in 1915 went Dr. Goldberger, and at the State Penitentiary he was able to persuade the warden to let him have 11 convicts on whom to try his experiments in diet. On February 4 he obtained his volunteers. He put them on a diet which consisted of biscuit, corn bread, sweet potato, corn, grits, rice, brown gravy, cane syrup, and coffee and sugar, with only a moderate amount of vegetables and no milk, meat or fruit. This was the diet that the poor whites of the South had been subsisting on for many years and on which they developed the red-skin disease that finally robbed them of their sanity.

Within 5 months 6 of the 11 convicts had developed pellagra. The others who had a balanced diet and who came in contact with the pellagrins did not develop the disease. Here was the answer to another problem that had been puzzling him. Why were the nurses and doctors at the insane asylums free from the disease although they came in close contact with the crazy pellagrins? He reexamined the diets of the doctors and patients, and found that the hospital attendants had a liberal diet of meat and milk and fruit, while the diets of their patients were devoid of these articles of food. Also this was true in certain orphanages where some of the orphans developed pellagra while the staff did

not. Here the diet of the orphans was poor in milk, fruits and meat.

Dr. Goldberger instituted reforms in the diets of his pellagrins. He saw to it that they had plenty of milk to drink and meat to eat. After subsisting on a diet rich in the proper foods the redness paled from their skins, and their minds and eyes became clearer. Their muscles grew firmer, and their bones became straighter and stronger. After several weeks of a well-balanced diet the pellagrins emerged as normal men and women.

What was there in the food that had caused this magic transformation? Had it something to do with Dr. Casimir Funk's vitamins? After many experiments on rats and pigs Dr. Goldberger became convinced that it was a lack of a water-soluble accessory food factor, a vitamin, that was the one and only cause of pellagra.

This food factor was found abundantly in milk and meat. Therefore it was an amino acid. Was it casein? More experiments, more facts. Not very conclusive. Casein did not prevent all the symptoms alone that prevented pellagra. There was something else. This other mysterious something he designated as P-P (pellagra-preventive). It does not in itself act as the sole preventive, but in association with vitamin B it does. P-P was found in great abundance in pure dried brewer's yeast. Yeast also contained all the other factors capable of preventing pellagra.

Brewer's yeast! The new magic food, that cures and curbs pellagra! How was Dr. Goldberger to flood the South with this potent food? How was he to banish pellagra from its fertile soil in the South? Robert McDowell Allen had an organization that had been growing yeast on varying mashers, and feedings showed a marked difference in influencing growth and reproduction in the litters of experimental animals raised on the yeast from the different mashers. An all-grain mash or mash with grain extract gave marked results over the molasses, ammonium salts media for yeast growth. Allen finally ob-

tained a pure extract that gave uniformly good results. He took samples of it to Dr. Goldberger in Washington. It was bitter in taste. "I wish I had, at once, a thousand pounds of it," Dr. Goldberger exclaimed. "It will take several weeks, through the necessary purchasing routine, to get it. The people in the pellagra section are educated to bitter medicine and will use it."

At 8:30 the next morning Dr. Goldberger and Mr. Allen left for the South. Together they organized the manufacturing and wide distribution of the new pure yeast to those communities in which pellagra was rampant. It was at a price that the poor could pay.

In 1927 the Mississippi River flood brought many cases of pellagra into the concentration camps. Dr. Goldberger and the State and County Medical Director of the American Red Cross, had, because of it, an unusually large pellagic clinic. It was here that dried brewer's yeast provided its magic power to banish and control this disease.

However, it was not alone in brewer's yeast that the magic pellagra-preventive was to be found. Dr. Goldberger continued his search and examined other foods. In 1928 he and his associates were the first to show that dried pig's liver was a rich source for the antipellagic vitamin. Dr. Minot's liver extract, which was proving such a valuable medicine for the conquest of pernicious anemia, was also proving to be a most valuable medicine for the treatment of pellagra.

What about fruits and vegetables? Tomatoes in liberal quantities were found to be of value in the treatment and prevention of pellagra. Canned salmon was found to be as good as meat in furnishing the desirable vitamin which prevented the disease. Milk and egg yolk also contained it in sufficient amounts. But other fruits and vegetables contained precious little. Carrots and rutabagas, much talked about health vegetables, lacked this element entirely.

The sociology of pellagra was just as important to Goldberger as its medicine. Now that he had a cure for this disease and a preventative as well,

it was most important that this element be made available to the greatest number of people in the shortest time possible. In 1927 together with Sydenstricker he made a survey of the pellagra problem in Tennessee, Arkansas and Louisiana. It was their recommendation that local relief agencies furnish the local health authorities with a supply of foods containing the P-P factor, to be distributed on short order to families suffering from this disease. They also encouraged the ownership of milch cows and the cultivation of gardens in which to grow those vegetables which are capable of preventing the onset of pellagra. It was most important to teach people what to eat and how to get the proper foods to eat, in order to curb the disease, as well as to prevent its appearance. Dr. Goldberger's work on pellagra was really never finished, and he was almost constantly occupied with this problem the rest of his life.

To Dr. Goldberger pellagra was a most fascinating disease. He devoted a great many hours of research and observation to its manifestations, its many phases, its clinical course. He helped impress its symptoms and signs upon the minds of fellow doctors; he wrote extensively upon it and described it so often that it became very well known. First there was the eruption, then followed weakness, nervousness and indigestion. When a child began to lose weight and became listless and fretful it was a good idea to suspect pellagra. In older persons a loss of strength with indigestion and nervousness, coming on or made worse in the fall, was often a sure sign that pellagra was the cause.

In the United States pellagra had always occurred most frequently in the South, particularly in the area south of the Potomac and Ohio rivers. Unfortunately, pellagra is still much of a problem in the South even today. It is very difficult to change the dietary habits of people.

Dr. Goldberger was among the first to point out that dietary deficiencies were prolific causes of disease, not only in man but in animals as well. The black tongue of dogs and pellagra of man are both caused by a lack of antipellagrins

elements. By feeding dogs a diet similar in all respects to that which caused pellagra in man Drs. Goldberger and Wheeler succeeded in producing black tongue in dogs. By feeding these same dogs diets rich in antipellagric vitamins black tongue was made to disappear in a short time. This little experiment in a bypath is regarded as of extreme importance in veterinary medicine today.

Dr. Goldberger had always been interested in the sociologic background of disease. He found that the poor suffered from nutritional disorders much more frequently than those whose incomes made more adequate diets possible. He made a thorough survey in South Carolina, a state in which pellagra occurred most frequently. There was a very definite relationship between lack of money with its lack of essential foods and the prevalence of the disease.

Although it is with pellagra that the name of Joseph Goldberger will always be associated, he devoted a great deal of his time to research on other problems. Hookworm, another disease of the South, claimed his attention for a while, and he did much to advance knowledge of this disease that made sloths of energetic men and made their 'blood run as thin as water.'

Measles was another ailment that interested the doctor. He was among the first to perform experimental inoculations of measles. It was he who also discovered a filtrable virus in measles, and he was among the first to write a full description of the nature of this virus. He then became interested in typhus fever and produced inoculations of typhus fever from man to monkey. He wrote much on the natural and induced immunity in typhus fever.

Yellow fever, dengue fever, cholera media, diphtheria, Brill's disease, the straw itch, the mode of the transmission of influenza, these also claimed Dr. Goldberger's attention. He was a tireless worker in the laboratory, the field, the clinics, the hospital.

There was one disease to which Dr. Goldberger did not pay much attention. It was a dis-

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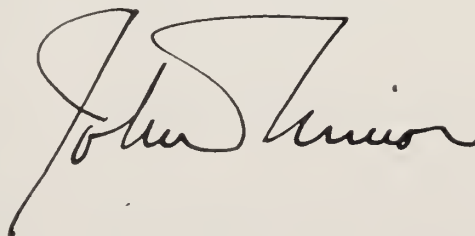
President's Page

OUR GUIDING STAR

The Nation's health is under scrutiny from many sources today, and this scrutiny, of necessity, includes examination of the medical profession's activities and duties in relation to the total problem. There has been increasing criticism of the profession over the past 15 years, and a tendency on the part of many interested in the subject of health, especially from the sociological angle, to condemn without sufficient knowledge; and an increasing desire on the part of social service groups and publicists to recommend the further taking over of the control of all health activities by these lay groups.

We cannot and should not deny that the profession has, in more instances than we like to think of, laid itself open to criticism for unfortunate commercial practices, and for failure to meet the challenges of public health needs, which in a simpler day of medicine were clearly the responsibility of the individual doctor. The unfortunate trend in organized medicine toward an attitude of defending their prerogatives, which has sometimes meant their right to what they consider their just financial reward, has done serious harm to the public's view of a highly honored profession.

Let us as physicians adhere as our guiding star to the basic and fundamental tenet that we are here to serve, rather than to be served, and take our place in the forefront of those working for the public welfare, without self-interest, or the suspicion of self-interest. Let us remember that the rewards, while necessary and important, must be secondary in our thinking and performance, and the public will fight our battles for us—as they have so often in the past.

A handwritten signature in cursive script, reading "John H. Union". The signature is written in dark ink and is positioned at the bottom right of the page.

Editorials

SCHOOL OF PARENTHOOD

There is nothing more important in human existence than parenthood, and yet how ill prepared are we for that part of our existence! Parenthood should begin long before conception and the bearing of children. Bringing new life into the world is but a small function of parenthood. The wonder is not how many children and consequently adults are maladjusted but how many are able to make some sort of social adjustment, largely as a result of their own painful experiences. Psychiatry starts at the end of the road. Modern psychiatry has failed in the sense that it is largely concerned with curative measures rather than preventive. The establishment of schools of parenthood would seem the logical first step in preventive psychiatry.

The sad fact of parenthood is that parents have only one chance at it. They have little opportunity to learn by experience and practically none to receive preliminary instruction. I say they have little chance to learn by experience because while they are gaining experience with one child the others are receiving the impacts of the emotional tensions engendered by the problems of the sibling who presents the most glaring difficulties. Thus, all are infected by this one child's social disease. By the time the parents have learned how to deal with the problems of one child—if they have—the problems of the other children may have developed to proportions beyond the depth of understanding of the partially enlightened parents. Thus bewilderment follows bewilderment.

Of course, parenthood to be at least partially successful depends in large measure both upon the individual social adjustment of the parents and upon their adjustment to each other. The

problem then is complex. The crux of the matter resides, however, in the proper emotional—and social—adjustment of the child. Why have we been so remiss in teaching parenthood? What can be done? Efforts are being made via books, the radio and newspapers. But how much more important would be schools or courses on parenthood. These could allow parents to ask the questions that are bewildering them, as well as having the subject matter presented by experts in a systematized way. Our Society would do a great service by sponsoring such courses. This would mean leadership, planning, coöperation, and publicity. It would mean some sacrifice on the part of the instructors. But what a reward in human service!

The course should be taken to the parents or prospective parents. It could well be given in public schools in different parts of the city for the convenience of the enrollees. The courses might well be a coöperative project of Parent-Teachers Associations and the Medical Society. Different instructors could present different phases of the subject, and a textbook might be utilized. Proper publicity would be necessary, and this might be obtained through ethical newspaper ads, the names of the instructors not being used. Some expense might be involved, and to defray this a small tuition fee could be charged. Let's be more public-spirited. Let's put health education where it belongs—in the hands of qualified physician-instructors. Let's take it to the people. They want it. They will be grateful. They will have more good will toward our profession.

In furtherance of the thesis of this editorial be

sure to read the excellent essay of Dr. William S. McCann, "Trends in Medical Education," which appears in this issue of the ANNALS. As an example of the type of instruction that would be

valuable in such a course as contemplated, be sure to read also the practical article, "Newer Concepts of Infant Feeding," written by Dr. William F. Burdick, also in this issue.

INTERN-RESIDENT TRAINING

The recent years which have produced such rising costs in all things have, as everyone knows, affected the hospitals as well. Caught between rapidly rising costs and an almost fixed income, hospitals have been faced with soaring deficits. Hospital administrators, seeking means of economizing on operating costs have with one accord reduced the charity or staff services rendered. Such a reduction of 'staff' patients has made a deep inroad into cases available for intern-resident training. The hospitals remain full, but the charity services have dwindled from 15 to 20 per cent of the volume to less than 5 per cent in most institutions. In the light of this change, there is some justification for grumbling among members of the resident staff. Heretofore, in most teaching institutions, which embrace all hospitals offering intern-resident training programs, these 'staff' cases formed the bulk of cases with which the resident developed his skills under the supervision of the attending physician. Now, the situation is altered. The 'staff' cases are at a minimum and the house officer feels he is being cheated.

The economy of the Nation cannot readily be altered, but we must continue to train younger physicians. I think that with some adjustments on both sides this can be satisfactorily accomplished. For example, in surgery the resident believes that unless he himself does the operation he cannot "learn" from the case. This stems from the belief that the mere performance of the operation is the mark of the accomplished surgeon. Of course, this is not true. Surgery begins with the first visit to the office and does not end until the patient is discharged. The execution of the operation is only one of the several steps in the proper practice of surgery. The

diagnosis is all-important and must be made prior to the operation, not after the patient is 'laid open.' Diagnosis is something residents and interns can learn without a scalpel in the hand. Preoperative tests and the general preparation of the patient are not done with sterile drapes. Preparation of the patient means more than just preoperative medication alone. It embraces particularly the psychologic preparation of the patient for the forthcoming ordeal. Too many times a careless word or thoughtless remark has instilled unreasoning anxiety in the preoperative patient. To be a good surgeon one must accept the responsibility for the patient's 'frame of mind.' Preoperative tranquillity is more satisfactory when induced by calm and kindly words than by barbiturates. The physician in training will sooner or later learn that he must insert into his crowded hours a few moments to serve the spirits of his patients instead of being so busy that he substitutes a capsule; herein lies the essence of the art of medicine. It is sad that so little instruction is available in this field. Such training is not dependent upon the volume of charity work available. It is applicable to rich and poor alike.

The decision as to whether to operate or when to operate is a primary function of the accomplished surgeon. Short periods of conversation about this and many other subjects would go far in schooling the young physician in the art as well as the science of medicine. Many times an attending physician is angered or embarrassed by the conflicting comments of a thoughtless house physician relayed to him via the patient or his relatives. The responsibility for such thoughtlessness rests pretty justifiably on the shoulders of all attending men. If they had

been more generous with their time and thoughts and had devoted some of these to the house physician, such unfortunate incidents would largely be eliminated. Everybody would benefit, the patient and family, the attending physician, and especially the house physician.

What has been said about preoperative care applies even more so to postoperative care. The patient has survived a surgical procedure essentially designed to restore health, but our fullest medical assistance toward this end is frequently only begun when the patient leaves the operating room. For a short postoperative period the patient is actually worse than he was prior to his operation. This is a critical time for the patient and for those who are responsible for his care. The young surgeon has a great deal to learn of this phase of an illness, and this knowledge does not come from working in the operating rooms only. In no period of illness is it more important to consider the "little things" which aid recovery. Without guidance the house physician will overlook these small but necessary factors in recovery, such as the position of a pillow or cramping an extremity heavy and painful in its coat of plaster. Being trained only in the science of medicine, he will frequently order a transfusion at its earliest indicated moment but neglect to order an enema for the patient's comfort. Training in the art of medicine is not a substitute for skill in the science of medicine; one is, rather, a compliment to the other.

Although the staff services in many institu-

tions have dwindled, thus to an extent limiting material for instruction in the science of medicine, the hospitals are still full and continue to provide ample material for instruction in the art of medicine as applied to the private patient. The attending physician has a responsibility to the physician in training as defined in the Hippocratic Oath. Let the attending physician encourage the house physician to examine the private patient and share some of the responsibility for his care. Let them work together rather than separately, and let there be a free exchange of ideas on mutual problems. The attending man will gain in having a valuable, on-the-spot and well-instructed colleague, and the house physician will profit by the responsibilities and further experience given him. Such a rapport is vital to the profession and to the furtherance of good medical care. When a resident says he wants to "do a case," he is in essence asking for the responsibility of that case. His prior years of training have prepared him to accept responsibility, and he understandingly wants to flex his muscles. I believe responsibility is the essence of good medical training, and when we permit the house officer to share our responsibilities, judiciously apportioned, we shall reap a gratifying return in a better cared-for patient, a more alert house staff, and the satisfaction of contributing to the instruction of these many fine young men in one of the most worthy professions.

JONATHAN M. WILLIAMS, M.D.

THE DAVIDSON LECTURE

The Tenth Davidson Lecture will be presented at the first scientific meeting of the Medical Society in October. The Davidson Lecture was established twenty years ago, 1929, to commemorate the outstanding service rendered to the medical profession in the District of Columbia by Dr. Edward Young Davidson. The selection of a lecturer was placed on a competitive basis in

1936 in the hope that it would stimulate research and performance of a high order. The titles of the last three lectures and the authors who were honored for their excellent papers are listed below:

1943—"Frontiers of Multiple Sclerosis," Walter Freeman, M.D.

1945—"The Role of the Small Vessels and Nerves of the Heart

in Heart Failure, Coronary Artery Thrombosis and Cardiac Pain," Joseph T. Roberts, M.D.
1947—"Cranioplasty: A Technic with Tantalum," O. Hugh Fulcher, M.D.

The preceding lecturers were Dr. William Hallock Park of New York City, who gave the first lecture in 1931, Dr. Edwin A. Merritt (1933), Dr. George C. Ruhland (1935), Dr. Harry A. Davis (1937), Dr. Freeman (1939), and Dr. Robert J. Coffey (1941). The roll is becoming a long and distinguished one.

The following rules govern the choice of the Davidson Lecturer:

"The selection of the Davidson Lecturer shall be on the basis of competition, the winning essay to be selected by a subcommittee consisting of five (5) members of the Executive Board appointed by the Chairman. No member can serve on the committee who may desire to compete.

"The competition shall be thrown open to physicians or other scientists working in the District.

"The essays to be submitted must bear no indication of the author's identity, being signed by a nom de plume. The identification of the author must be in a sealed envelope bearing on its surface the same nom de plume. No essay may be submitted that has been published.

"Essays should be submitted to the Secretary of the Medical Society of the District of Columbia not later than July 1 of odd numbered years.

"In case no essay is found worthy of an award, the subcommittee shall declare no award; the lecturer then to be selected by the full Executive Board."

All essays submitted in competition for the 1949 Lecture must be in the hands of the Secretary of the Society not later than July 1, 1949; no manuscripts will be accepted after that date.

Competition is open to physicians and scientists in allied fields whether they are members or nonmembers of the Society.

EVALUATION OF GROWTH AND DEVELOPMENT

In the daily task of evaluating the growth and development of his younger patients, the physician must rely in large measure on a carefully taken history and a complete physical examination, either of which may reflect changes in certain aspects of growth which will not be evident in deviations of height and weight until tissue changes are extreme. The judgment and experience of the physician then allow an assessment of the individual in comparison to the normal. To prevent this evaluation from being too subjective, it has become standard practice to take certain body measurements, usually height and weight, as objective signs of the patient's physical status. Although height and weight are objective data, the figures alone can give no reliable information. The information must be obtained from the manner in which these data are treated. It is unfortunate that most of the charts and tables now in use tend to consider height-weight measures as static figures to be

compared against a normal, or against a range of normal for a given age, thus giving the idea that the child is above or below normal, or within or beyond the normal range. It is essential to realize that the actual physical status at any one given time is of less importance in evaluating development than is the rate of gain in height or weight over a specified period. This obviously requires two or more observations of the same individual, with adequate intervals between observations. Todd, in describing the assessment of growth by determination of skeletal age, again warns that a single evaluation is of no help, because of individual potentialities for deviation from the so-called normal. Two or more evaluations at least a year apart, showing the trend in skeletal maturation, will give a more accurate appraisal of the individual.

This inability to take into account individualism in growth patterns has made it difficult to

reduce human growth and development into a simple graph. Wetzel believes that the use of means, medians or percentiles, in tabular or curve form, fails to make due allowance for individual differences in physique, an item that cannot be disregarded in any attempt to appraise the individual and his growth. In addition, with the growth curves currently in use, two separate curves, weight-age and height-age, must be charted to obtain any conception of body build, an idea very difficult to convey when two curves must be visualized. The height-age and weight-age charts constructed by the University of Iowa for use of the Department of Pediatrics and the State Service for Crippled Children are the most complete and adequate of the conventional types now in use. Even in these charts there is constant reference to the normal, and to the significance of being one or more standard deviations above or below the normal. However, they do stress the necessity of serial observations in evaluating the child.

A more recent development in this field has been a new type of chart or "grid," designed by Wetzel, which has succeeded in treating height-weight-age data in such a manner that the information becomes more concrete, not only for purposes of comparing the subject to others in

his group, but for the more important purpose of determining the normal path of progress for the individual child. The Wetzel Grid, by plotting height against weight, produces a single curve, on which the individual points are developmental levels, corresponding to lines of constant body surface area. These developmental levels, as secured by serial observations and plottings of height and weight, are charted against chronological age to give a comparative record, and to show individual performance. This method of treatment of the customary data takes into consideration the particular growth characteristics of the individual child, and indicates the child's own progress regardless of his position as compared to the so-called normal. Adherence to or deviation from the expected curve of the individual rather than his position in relation to the normal then becomes the significant feature of the chart.

The Wetzel Grid appears to be the best method so far devised for treating the objective height-weight-age data, not only for the purpose of supporting and improving upon the subjective impression of the physician, but in certain instances even forecasting growth failure before clinical evidence is available.

WILLIAM A. HOWARD, M.D.

In and Out of Focus

BY THE OBSERVER

“... *the Most Revealing Half Hour...*” Few programs now on the air are more stimulating than the Mutual Broadcasting Company's “Meet the Press.” Usually these Friday night broadcasts are what their sponsors claim for them—“the most revealing half hour in radio.” No holds are barred when top-flight reporters quiz some public figure who, at the moment, holds the national spotlight.

Federal Security Administrator Oscar R.

Ewing was recently a guest on this program. Representing the press were Lawrence Spivak, Editor of *The American Mercury*, who acted as moderator, Tom Reynolds of *The Chicago Sun-Times*, Cecil Dickson of the Gannett Newspapers, Ernest K. Lindley of *Newsweek*, and William H. Lawrence of *The New York Times*. Their purpose was to elicit Mr. Ewing's views on the most controversial feature of his ten-year health program—compulsory health insurance.

Your Observer procured a copy of the broadcast just as it was given. No editing has been done and readers will find the result illuminating.

Immediately following the introduction of participants this revealing colloquy occurred:

REYNOLDS:

Can you tell me why it is that the physicians and organized medicine as such oppose your program?

EWING:

Well, I suppose they simply don't know what it is that we're proposing because the objections they make, most of them, simply don't apply to what we're talking about. They talk about being afraid that it'll destroy the relation between a doctor and his patient. Well, it just doesn't.

REYNOLDS:

Well, Mr. Ewing, it seems incredible to me that the medical profession, which is rather well organized, doesn't know what it is opposing. How long has this program been mooted in the Congress now?

EWING:

Well, I don't know. Several years, but I've had any number of invitations to speak to medical schools and medical organizations because they get all their information either from the National Physicians' Committee, which is a subsidiary of the American Medical Association, or from the American Medical Association. I don't think either of them represent the plan correctly.

LAWRENCE:

I was reading in the paper this morning, Mr. Ewing, that the doctors have voted to levy each of their members twenty-five dollars on, I think, a total membership of a hundred and forty thousand for the purpose of educating their membership and it seems in general to lobby and fight against this program. I wonder if you have any comment on that.

EWING:

Well, I don't know whether all of those doctors will put up the twenty-five per or not. The size of it is that I don't know what they can use this money for

properly. Of course, the National Physicians' Committee is the most expensive lobby in Washington today. There are three hundred and fifty-three thousand dollars that they spent in the first nine months of this year and is more than any other lobby spent. They spent more than the National Association of Real Estate Boards or the National Association of Electric Companies. The fact of the matter is that they ought to spend their money educating some of their own members instead of trying to make the public feel that the present health of this country can't be improved, because it can.

LAWRENCE:

Well, what's your reaction, though, to the principle of an association or what amounts to a trade organization, a trade union of doctors, levying a specific tax on all of its members in order to fight this specific piece of legislation? We've been hearing a lot of talk about lobbying recently. I think that the President said something about it during his campaign.

EWING:

Well, to me, it's absurd that they've got to spend all that money lobbying. For instance, twenty-five dollars per. Suppose the labor unions with twelve million members were to assess their members twenty-five dollars for lobbying. That'd raise the fund to something like three hundred million dollars. It's—to me, it's just not the thing to do. I mean, you don't have to do it if your cause is good.

SPIVAK:

Well, there have been instances where labor unions have assessed their membership for just that and, as I remember, to help the New Deal at various times to win. There have been no objections raised to that, have there, Mr. Ewing?

EWING:

I don't recall that the lobbying ever did that. They raised some large funds for election purposes, but that's . . .

SPIVAK:

That was called at the time, to present information to the people. Mr. Lindley . . .

EWING:

They're all called educational programs.

At this point the reporters wished to know what the insurance program would cost the taxpayers; also what individuals required to contribute would receive in the way of medical care.

LINDLEY:

It seems to me we're talking about rather small sums of money. Let's get back to the cost of the self-insurance program, if we may, Mr. Ewing. What is your best estimate of the total cost of that program when it's in full swing, and the second part of my question is, how much of the payroll would it take to support that, if it were supported entirely by payroll tax?

EWING:

Well, Mr. Lindley, the first question as to how much it would cost, that is difficult to answer because it would depend on the extent of the services at the outset. We know that we haven't enough doctors and enough hospitals, enough medical personnel and physical equipment to give complete medical services to all the people that would be entitled to have it. We probably at the outset could only give general practitioners' services to everyone who was entitled to it. At that time, I don't know, as the services expanded, and when you got up to full coverage of home calls included in the doctors' services, home nursing, the cost might run somewhere between four and six billion dollars each year. Now, if it ran that amount, the cost would run on payroll deductions perhaps four per cent. Roughly estimating annual payrolls of a hundred and fifty million dollars a year, four per cent would raise six million dollars, two per cent from the employers and two per cent from the employees.

LINDLEY:

Now, Mr. Ewing, you're also proposing to expand and increase the benefits under the Old Age and Survivors' Insurance Plan and, I believe, introduce permanent disability insurance, and, perhaps, increase other benefits. Do you have an over-all figure of what, in terms of payroll tax, it would cost to support the complete program that you're...

EWING:

No, I don't. I haven't got that figure, Mr. Lindley.

SPIVAK:

Well, haven't I seen some estimates that the complete cost would be pretty close to twenty per cent of our payroll?

EWING:

Well, you may have seen those estimates, but I don't think they're accurate.

SPIVAK:

Are there any estimates around?

EWING:

Well, yes, and I'm sorry I don't have them, but I don't think they run anywhere near that high, Mr. Spivak.

DICKSON:

Mr. Ewing, your report in September said that this program would cost ten billion dollars a year by 1960. Is that right?

EWING:

Well, that report dealt with a great deal besides health insurance, Mr. Dickson. That involved medical education, aid to medical education, aid to research, medical research, hospitals, more hospitals, more diagnostic clinics, and all that, and all of those things were included in this cost, and we figured that would run something like four billion dollars a year. That would come out of general taxation.

Later in the program, Mr. Reynolds questioned Mr. Ewing further about the cost of his insurance program.

REYNOLDS:

I'm particularly interested, Mr. Ewing, in the cost of this program translated in terms that the average working man or woman can understand. Now, you're proposing certain health services. Supposing I make fifty dollars a week and supposing I'm making just exactly that and spending a certain amount of money to support my wife and family and take care of them when they're ill. If I'm

making that sum, how much can I anticipate as a maximum your program would take out of my pay check every week—fifty cents, a dollar, two dollars, or what?

EWING:

Well, let's see. Twenty-six—fifty dollars a week—twenty-six hundred dollars a year—two per cent out of that. It'd be fifty-two dollars. So, it'll be a dollar a week.

REYNOLDS:

A dollar a week. That would be a maximum, now, wouldn't it? It wouldn't run above that and my employer would have to give what?

EWING:

He'd be contributing an equal amount.

REYNOLDS:

An equal amount, and that, of course, would add on top of the other deductions which are already taken out of my fifty dollars a week for Social Security . . .

EWING:

But you'd be getting an awful lot back for it. You'd be getting your medical service for your family for fifty-two dollars a year.

REYNOLDS:

Now, supposing I had four children and I was a streetcar conductor in Chicago and I was making fifty dollars a week, what could I get out of that fifty-two dollars a year?

EWING:

You would get the service—whatever service was available.

REYNOLDS:

Well, you said it would start slowly. Maybe, the first year, I wouldn't get as much as I would the second, and would there be any discrimination against me?

EWING:

No, but there would be this. You ask me what the maximum tax would be. The tax would be—at the start would not be that high because until the services were more extensive, the tax would not be

the full four per cent, half from the employer and half from the employee, that I'm talking about. We envisage a tuning-up period of three years to get the thing started. There, we talk about a half per cent, meaning a quarter per cent coming out of each and, then, it would probably the first year of operations step up to one per cent. Just what that would be I don't know.

REYNOLDS:

The percentages confuse and I assume they confuse a lot of people who figure these things out, but if I were making fifty dollars a week, the maximum that I could expect to be taken out of my pay check each week under your program would be one dollar . . .

EWING:

That's right.

Mr. Lindley pursued this line of questioning with enlightening response.

LINDLEY:

Mr. Ewing, with respect to this four per cent payroll tax to support this health insurance, does that pay the premium merely on the cost of insurance against the cost of medical care? What provision do you propose to make for loss of wages from disability, either temporary or permanent?

EWING:

Well, that's a different insurance, Mr. Lindley . . .

LINDLEY:

Well, are you planning . . .

EWING:

That's a disability insurance. Yes . . .

LINDLEY:

Both temporary and permanent . . .

EWING:

It's disability from our point of view and I think the terms . . .

LINDLEY:

How much would that cost, do you think, in terms of the payroll tax?

EWING:

I don't—I can't answer you that . . .

LINDLEY:

On that very point, I think, it's worthy of pursuing, Mr. Spivak and Mr. Ewing. Supposing I have been paying steadily into your health insurance fund and the thing that we all dread and hope won't happen occurs, a depression, and I am out of work for two years. Am I still protected under that program?

EWING:

Oh, sure.

LINDLEY:

Well, how are you going to finance it then, if a very considerable portion of the population, say, ten or twelve million people, are out of work? Won't your fund go bankrupt?

EWING:

Well, that's the whole idea, but in insurance system, you would build up reserves in good times, hoping they would tide you over.

LINDLEY:

Supposing we had a depression a year after you put the program in effect.

EWING:

Well, we'd have to—I don't know how we'd meet that. We might have to use general tax funds to meet a situation of that kind.

LINDLEY:

That would be direct appropriations. Physicians taking care of the public.

EWING:

Yes, I don't see how you could do it otherwise.

As was to be expected, the medical profession's opposition to Mr. Ewing's proposals came under discussion.

SPIVAK:

Mr. Ewing, I'd like to ask you a practical question. Suppose most of the hundred and eighty thousand

doctors refuse to join your system, what then? What are you going to do about that?

EWING:

Well, you mean a doctor's strike, a refusal to do the thing out. I just don't think that would happen.

SPIVAK:

Well, suppose it did, though?

EWING:

Well, that's an if question . . .

REYNOLDS:

It happened in England, such a circumstance. I understand that doctors were very reluctant there. Did they accidentally come around?

EWING:

Where?

REYNOLDS:

In England.

EWING:

Oh, yes, yes. In England, the doctors did object to the plan but never to the idea of the prepaid insurance plan. There was—the objections there were specific details of the plan. There were four specific objections. Over in England of a doctor selling his practice. Well, that was forbidden by law. When the method of payment—the doctors objected to that and, then, a third thing, under the English system, the doctor was not allowed to settle in a community where there were too many doctors already, and they object to that, and there was a fourth objection. I can't remember what it was.

SPIVAK:

Well, weren't the doctors forced finally by law to accept the plan?

EWING:

Oh, no, no, no. They went in voluntarily and ninety-three per cent of the doctors are in today and about a corresponding percentage of the population went in.

Mr. Lindley questioned Mr. Ewing further in regard to the criticism leveled at the insurance features of his program.

LINDLEY:

Mr. Ewing, some of the questions tonight seem to imply that the only strong opposition to health insurance comes from the medical profession. What about the great volume, the great number of middle-income people who now manage to pay their doctors' bills and get good service. Won't they be adversely affected by this program?

EWING:

Well, Mr. Lindley, the point of the thing is that today you have at least seventy million people in this country living in families where the total family income is less than three thousand dollars a year. Now, people living in those families, and that's at least half of the population of America, can't pay for adequate medical services under the present system of paying the doctors' fees, and that's the group that we want to reach.

LINDLEY:

I understand that and I sympathize with that objective, but can it not be reached without reducing the standard of medical care of the people who now get good medical care?

EWING:

I do not think it will reduce their standard of medical care at all. I don't see why it should. Certainly, your doctors will be no less qualified. Your hospital facilities will be no less qualified.

SPIVAK:

Mr. Ewing, in a speech you made in November, you said something that I'd like to ask you about. You said that even if we had to concede that every doctor in the country is unalterably opposed to the system, you would still like to ask this question: Which is more important? The personal, selfish business and professional values of some hundred and eighty thousand practicing physicians in this country or the health and well-being of some sixty-eight million of our population who cannot possibly afford to pay their fees? Now, what exactly do you mean by that, that the doctors weren't willing to

accept this system and something ought to be done to impose it on them?

EWING:

No, no, no. I didn't mean that. So much of the public discussion on this thing is talking about the interest of the doctors and of what's going to happen to the doctors, but, my goodness, what's going on! It's what's happening to seventy odd million people all the time, and I'd like to get a little thought diverted to that.

There was some reference to Communism as there usually is in a discussion of this type.

DICKSON:

Mr. Ewing, is this patterned very much after the Communist system in Russia?

EWING:

No, it has nothing . . .

DICKSON:

They have district doctors and compulsory health services there and the richest people in Russia are supposed to be doctors because the people don't go to their clinics where they should go.

EWING:

Well, I'll tell you, Mr. Dickson, what this program is often called by its opponents is socialized medicine. Now, of course, it gets down to a definition of what you mean by socialized. What I mean by socialized medicine would be when the doctors are in the employ of the state, are paid salary, and the state can direct them what to do and when to do it and how to do it. Now, our plan doesn't envisage that at all. Our plan is very simple. The first place, the administration of the plan would be, as far as possible, just in local committees that would administer the plan in a local health area. Then, the doctors in that area would sit down with that local committee and agree on a scale of charges to be made for their services. Then, anyone who's entitled to their services—he would pick out the doctor that he wanted to serve him. Well, the doctor might say, "I don't want this fellow." I might say, "I'd like Dr. Jones." Dr. Jones'd say, "I don't want Ewing for a patient. I want some-

body—I won't take him." Well, I'd have to go hunt somebody else, and—but, from then on, when I do get a doctor that'll take me, there is absolutely no change from the existing situation, except that he's paid in accordance with those fees, and he gets his money out of the insurance fund instead of directly from the patient.

What did Mr. Ewing think about the future of medicine, if his program were realized?

DICKSON:

Well, Mr. Ewing, do you think that your plan will encourage youth to get into the medical profession?

EWING:

Yes, I do, because I think there'll be a great many more financial inducements. If you get this plan into effect, there will be millions more each year that'll go out and be paid for medical services so that it'll support a great many more doctors and support them on a better scale than many of them live today.

DICKSON:

Do you know of any country that has more doctors in proportion to the population than the United States?

EWING:

I don't. I just don't know the answer one way or the other—whether there are or aren't. I can't tell you.

Toward the close of the broadcast, the November election came under discussion.

LAWRENCE:

Well, it seems to me we've had a lot of talk about the opposition to this program tonight, Mr. Ewing. I wonder if you interpret the election results in any way as bearing on this question of health insurance, which is certainly one of the things that the President talked about and which Governor Dewey himself in his Boston speech said he favored, though he was by no means specific as to the kind of program which you're advocating.

EWING:

Well, of course, everyone interprets the election as an endorsement of their own programs and that may not be a fair thing to do.

LAWRENCE:

That's hardly true of Mr. Dewey, is it, Mr. Ewing?

EWING:

No . . .

LAWRENCE:

Not everyone then . . .

EWING:

No, but everyone that was on our side of the fence.

A few minutes after the above exchange, Mr. Lawrence again questioned Mr. Ewing on the effect of the election on the medical situation.

LAWRENCE:

I think—I don't think you quite get the point of my question about the election results, Mr. Ewing. That is this. In the past, we've had these programs and the Congress has done nothing about them. Now, do you feel a reasonable chance that this program will be enacted by the present Congress, and, if so, with how much opposition?

EWING:

Well, Mr. Lawrence, this is a highly controversial subject and whether it gets through this Congress or not, I don't know. Certainly, we're a great deal further along since November second than we were on November first and a great deal better likelihood of getting the bill enacted, and I would hope that we get it through this session, but whether that'll be the result, I don't know.

DICKSON:

Mr. Ewing, who's going to pay for the Government's propaganda lobbying for this bill?

EWING:

Well, there's no taxpayers'—I don't get a dime for being here tonight. (*Laughter. . .*)

THE EASTERN CONFERENCE OF RADIOLOGISTS

SCIENTIFIC PROGRAM

FRIDAY MORNING, MARCH 11, 1949

PRESIDENTIAL BALLROOM, HOTEL STATLER

9:00-10:15 PANEL DISCUSSION

**The Correlation of Electroencephalography, Pneumoencephalography
and Arteriography in the Diagnosis of Lesions of the Brain**

1. Radiological Aspects

GEORGE M. WYATT, M.D., *Moderator*

2. Neurosurgical Aspects

ARTHUR A. MORRIS, M.D., Neurosurgeon, Doctors Hospital

3. Neurological Aspects

ROBERT H. GROH, M.D., Associate in Neurology, Department of Neurology and Psychiatry,
George Washington University School of Medicine

4. Neuropathological Aspects

WEBB E. HAYMAKER, M.D., Chief of Neuropathology Section, Army Institute of Pathology

10:15-10:30 INTERMISSION

10:30-10:45 **Supervoltage Radiation Therapy of Brain Tumors** From the Radiological Clinic of Drs. Groover,
Christie and Merritt

MAJOR KEENE M. WALLACE, M.C.

Chief of Radiation Therapy

Walter Reed General Hospital

Discussion by: AUBREY O. HAMPTON, M.D.

Chief Radiologist

Garfield Memorial Hospital

10:45-11:00 **Congenital Vascular Anomalies
(Phlebectasia)**

CAPTAIN ACORS W. THOMPSON, M.C.

Chief of Peripheral Vascular Section

Walter Reed General Hospital

11:45-12:00 **Colon and Small Bowel Injury Fol-
lowing 1000 KV Roentgen Therapy**

COLONEL HAROLD I. AMORY, M.C.

Chief Radiologist

Walter Reed General Hospital

IRVING D. BRICK, M.D.

Consultant in Gastroenterology

Walter Reed General Hospital

11:00-11:15 **Diagnostic Problems in the Normal
and Pathological Physiology of the Colon**

WILLY E. BAENSCH, M.D.

Professor of Roentgenology

Georgetown University Medical School and Hospital

12:00-12:15 **A New Technic for Radium Therapy
in Carcinoma of the Bladder**

MILTON FRIEDMAN, M.D.

Consultant in Radiation Therapy

Walter Reed General Hospital

LLOYD G. LEWIS, M.D.

Professor of Urology

Georgetown University School of Medicine

11:15-11:30 **Radiologists' Role in the Prevention
and Early Diagnosis of Cancer of the Colon**

FRED O. COE, M.D.

From the Radiological Clinic of Drs. Groover,
Christie and Merritt

11:30-11:45 **Differential Diagnosis of Inflamma-
tory, Benign and Malignant Extrinsic Lesions of
the Gastrointestinal Tract**

HENRY W. WOOD, M.D.

Fellow in Radiology

12:15-12:30 **Primary Ureteral Tumor—A Case
Report**

WILLIAM M. CLOPTON, M.D.

Sibley Memorial Hospital

12:30-2:30 LUNCHEON PERIOD

FRIDAY AFTERNOON, MARCH 11, 1949**NATIONAL BUREAU OF STANDARDS****AND****THE NATIONAL CANCER INSTITUTE, UNITED STATES PUBLIC HEALTH SERVICE**

This part of the program will be held at the National Bureau of Standards. Buses from the Hotel Statler to the Bureau will be provided.

2:30-4:30 Biological Effects of Chronic Irradiation with Gamma Rays on Laboratory Animals

By the Staff of the National Cancer Institute

1. Introductory Remarks (5 min.)

EGON LORENZ, Ph.D.

2. Effects on Breeding Behavior of Mice (20 min.)

MARGARET K. DERRINGER, Ph.D.

3. Pathology of Radiation Injury (20 min.)

ALLEN B. ESCHENBRENNER, Ph.D.

4. Effects on Life Span, Hematopoiesis and Carcinogenesis (20 min.)

EGON LORENZ, Ph.D.

Physical Aspects of X-ray Protection and Dosage Measurement

By the Staff of the National Bureau of Standards

5. Conditions for the Economical Achievement of X-radiation Protection (20 min.)

HAROLD O. WYCKOFF, Ph.D.

6. Calibration Use of Thimble Chambers up to 1400 Kilovolts (20 min.)

LAURISTON S. TAYLOR, Ph.D.

7. Conditions for the Proper Utilization of Dosage Meters, Particularly in the Low Energy Range (20 min.)

FRANK H. DAY, M. S.

Inspection of the Bureau of Standards' two new high voltage radiation laboratories.

Following the presentation of the papers the X-ray Section will hold an "open house" in its recently completed 1490 kilovolt X-ray laboratory. In this will be shown the 1490-kv X-ray generator, X-ray tube, ion tube and electron tube together with the special high pressure ionization chambers used with them. There will also be included the standardization laboratory for calibrating thimble chambers up to 200 kilovolts and for low voltage high intensity radiations such as obtained from contact therapy and beryllium-window tubes. The new multimillion-volt betatron laboratory will also be open for inspection. There are numerous other laboratories about the Bureau working on problems of direct or indirect interest to the radiologist.

6:30-8:00 Cocktails, Congressional Ballroom

8:00 P. M. Banquet, Presidential Ballroom

SATURDAY MORNING, MARCH 12, 1949**CONGRESSIONAL BALLROOM, HOTEL STATLER****9:00-10:15 PANEL DISCUSSION****The Management of "Surgically Incurable" Cancer of the Breast**

The following specific aspects of the disease will be discussed: (1) Local Lesions; (2) Regional Nodes; (3) Visceral Metastasis; (4) Osseous Metastasis.

MODERATOR: RALPH M. CAULK, M.D., Chief of Radiation Therapy, Garfield Memorial Hospital

1. Surgical Aspects

CALVIN T. KLOPP, M.D., Medical Director, Warwick Memorial Clinic

2. Radiation Therapy

U. V. WILCOX, M.D., Radiation Therapist, Doctors Hospital

3. Endocrine Aspects

ROY HERTZ, M.D., Chairman, Endocrinology Section, National Cancer Institute; Associate, Warwick Memorial Clinic

4. Neurosurgical Aspects

JAMES W. WATTS, M.D., Associate Professor of Neurosurgery, George Washington University School of Medicine

10:30-10:45 **Tissue Distribution of Some Organic Compounds of Radioisotopes**

CHARLES F. GESCHICKTER, M.D.

Professor of Pathology

Georgetown University Medical School and Hospital

10:45-11:00 **Prenatal Bowing of Tubular Bones—
A Presentation of Cases**

FRANCIS C. ALLMAN, M.D.

Associate Radiologist

Providence Hospital

11:00-11:15 **Orbital Foreign Bodies—Criteria for
Detection and Discussion of the Pfeiffer Method
for Precise Localization**

ALFRED A. J. DEN, M.D.

Episcopal Eye, Ear and Throat Hospital

11:15-11:30 **Epilation in Ringworm of the Scalp
(Microsporum Auidini)**

ISIDORE LATTMAN, M.D.

Children's Hospital

11:30-11:45 **Intussusception—Reduced by Bar-
ium Enema (Hydrostatic Pressure)**

ISIDORE LATTMAN, M.D.

Children's Hospital

GERALD H. MCATEER, M.D.

Attending Surgeon

Children's Hospital

11:45-12:00 **An Analysis of Approximately 7000
"Positive" Chest Roentgenograms Encountered
in a Recent Survey in the District of Columbia**

ROLLIN F. BUNCH, M.D.

Fellow in Radiology

From the Radiological Clinic of Drs. Groover,
Christie and Merritt

Discussion by: AUBREY O. HAMPTON, M.D.

Chief Radiologist

Garfield Memorial Hospital

12:00-12:15 **Value of Chest Roentgenograms as a
Routine Part of Cancer Detection Examinations**

C. H. WALLMAN, M.D.

Fellow in Radiology

From the Radiological Clinic of Drs. Groover,
Christie and Merritt

Discussion by: AUBREY O. HAMPTON, M.D.

Chief Radiologist

Garfield Memorial Hospital

12:15-12:30 **The Clinical Application of Radioiso-
topes in the Diagnosis and Treatment of Cancer**

MURRAY M. COPELAND, M.D.

Professor of Oncology and Radiotherapist

Georgetown University Hospital

12:30-12:45 **Results of Radiation Therapy Alone
in Adenocarcinoma of the Uterine Cervix and
Corpus**

GEORGE D. ADAMS, M.D.

Fellow in Radiology

From the Radiological Clinic of Drs. Groover,
Christie and Merritt

REPORT OF DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION

The House of Delegates of the American Medical Association met for its 1948 Interim Session in the St. Louis Municipal Auditorium on November 30 to December 1, in an atmosphere laden with the feeling that important problems would be weighed by the House at this session. This second Interim Session exceeded in numbers registered and in the quality of the scientific program the initial meeting in Cleveland last January.

General Practitioner Award: Pursuant to the procedure adopted by the House at the Annual Meeting, June last, the Board of Trustees presented the names of three nominees for recognition as the "outstanding General Practitioner of the Year for 1948." On a ballot the citation was awarded to Dr. William L. Pressly of Due West, South Carolina, who last June had been elected a member of the Council on Medical Education and Hospitals. The gold medal was later awarded to Dr. Pressly at a night meeting in the Opera House. The other nominees were Dr. Lyle Hare of Spearfish, South Dakota, and Dr. Charles Manley Horton of Franklin, Louisiana.

Citation for Distinguished Lay Service: The new By-laws adopted last June provide for a "Citation for Distinguished Service" for "persons not of the medical profession." On nomination of the Board of Trustees, the House unanimously voted this honor to the Reverend Alphonse M. Schwitalla, S.J., Dean of the St. Louis University School of Medicine, distinguished for many years in the hospital field both through the American Hospital Association and the Catholic Hospital Association. It is regretted that since receiving this award, Father Schwitalla has been obliged, for reasons of health, to resign his office as Dean.

Interim Meeting in Washington: Your delegates were accompanied to this meeting by Mr. Reginald Martine, representing Mr. Clarence Arata of the Greater National Capital Committee of the Washington Board of Trade. Representations made at St. Louis resulted in the agreement of the Board of Trustees to hold next winter's Interim Session of the House and the General Practitioners' Scientific Session in Washington, D. C., provided suitable accommodations can be made available. The date is for the week starting December 7, 1949; final determination will be made in January.

Diabetes Week: According to instructions from the Executive Board of this Society, your delegates sup-

ported a resolution which endorsed the week of December 6-12, 1948, as "Diabetes Week" for furthering the "Diabetes Detection Drive" of the American Diabetes Association.

Reference Committee on Reports of Secretary and Board of Trustees: One of us (C. B. C.) sat with this reference committee to consider the official annual reports and the recommendations of the Board and the Secretary. A clarification of the nature of the World Medical Organization and of the World Health Organization was given. The latter is an official assembly of governmental agencies and the health section of the United Nations. The World Medical Association is a voluntary association of representatives of medical organizations throughout the world. "It has a great potential in bringing physicians from everywhere together and affords the opportunity for discussion of mutual problems for the development of mutual strength."

This reference committee advised action to provide generous financial support for projects in which the American Medical Association is now engaged and for additional activities.

Proposals from Associated Medical Care Plans, Inc.: The Blue Shield Commission of Associated Medical Care Plans, Inc., and the Blue Cross Commission of the American Hospital Association presented proposals for the organization of a national enrolling agency for medical service and hospitalization prepayment plans and for the formation of a national insurance company for selling coverage to national accounts. The House of Delegates endorsed the national enrolling agency but rejected at this time the proposal for the national insurance company. Debate on the proposals occupied a whole morning of the reference committee meeting which was attended by several hundred persons. The arguments will not be detailed here, but your delegates noticed in some quarters considerable feeling about the tendency toward the practice of medicine by hospitals.

Assessment Levied on AMA Members: In several recent meetings of the House there has been discussion of how the expanding budget of the AMA was to be met. The House has been imposing more and more tasks upon the Board of Trustees and the staff at headquarters, and this, coupled with current inflation, has posed a serious fiscal problem.

At this meeting, an added fillip was given to this

matter by the full realization of the fact that adequate information on the subject of medical economics has not been furnished to the American electorate.

Therefore, the House authorized the Board of Trustees to collect an assessment of \$25.00 from each member of the Association, part of which could be used for this latter purpose. This activity will be under the general supervision of a planning committee made up of ten members, four from the Board of Trustees and Officers, three from the House of Delegates, the Chairman of the Board of Trustees, the President, and the Secretary and General Manager of the AMA.

Since our Society has always fought for the principle that the American Medical Association should speak for the American physician and not leave this important matter to other organizations, this action will be recognized as a logical development of our position, a feeling shared by many other societies throughout the Nation.

Statement of Principles of the AMA: The House adopted a "Statement of Principles," the text of which, as introduced,* follows:

"The American Medical Association reaffirms its belief in the application of the principle of insurance on a voluntary basis. The AMA has encouraged and assisted the development of voluntary prepayment plans. Coverage is now provided throughout the country, and protection is being extended rapidly to an ever-increasing proportion of our population.

"The American people now enjoy the highest level of health, the finest standard of scientific medical care, and the best quality of medical institutions thus far achieved by any major country of the world.

"The great accomplishments of American medicine are the result of development by a free profession working under a system of free enterprise, unhampered by governmental control.

"The experience of all countries where government has seized control of medical care has been progressive deterioration of the standards of that care to the serious detriment of the sick and needy.

"The American medical profession is unalterably opposed to the institution of any system of medical care which would result in damage to the American public. Our carefully considered opinion is that any scheme of political medicine would be a catastrophe for the American people.

"Compulsory sickness insurance, notwithstanding misleading bureaucratic propaganda, is a variety of socialized medicine or state medicine and possesses the evils inherent in any politically controlled system. It is contrary to American tradition, and is the first and most dangerous step in the direction of complete state socialism. The American Medical

Association rejects any such scheme as a method of the distribution of medical care; we are equally certain that when the people understand the facts, they also will reject it with the same finality.

"On the basis of experience, we are convinced that voluntary medical care insurance, with the continued support of the American medical profession, can and will solve the economic problem of the distribution of medical care within the existing framework of private enterprise.

"It has been demonstrated that the voluntary method provides a better and less costly service and avoids the imposition of enormous taxation.

"The continuing purpose and determination of the American Medical Association is to maintain and improve the standards of medical care, and to make that care available to all our people."

Resolutions from Your Delegation: Three resolutions, reported below, were introduced by your delegates. They were all unanimously passed by the House with slight changes of wording.*

I. SELECTIVE SERVICE: Following consultation with General Lewis B. Hershey and Colonel Richard H. Eanes of National Selective Service, and acting on instructions from the Executive Board, we introduced the following resolution which was passed:

WHEREAS: (1) The traditional position of the American medical profession has been to serve local draft boards without compensation; (2) The House of Delegates in June 1948 adopted a resolution calling for compensation for this service; (3) the Selective Service System has ample assurance from American physicians that they will continue to serve without fees; (4) procedures established under the authority of the Selective Service Act of 1948 require fewer examinations than under the previous acts; and (5) the continuance of the aforesaid resolution puts the physician in an unfavorable light which is not truly expressive of his feelings;

THEREFORE BE IT RESOLVED: (1) That the House reconsider the resolution referred to above; and (2) that the action of June 23, 1948 be rescinded.

Later the following comment was received in a letter from General Hershey:

Colonel Eanes upon his return from St. Louis gave me an account of the presentation by you of the resolution requesting reconsideration of the resolution adopted in June of 1948 to which we objected.

* The exact language as adopted will appear in the minutes when they are published.

I am exceedingly grateful to you for your assistance in this affair and its happy conclusion.

Very sincerely yours,
LEWIS B. HERSHEY
Director, Selective Service

December 7, 1948

II. LOCAL HEALTH UNITS FOR THE NATION:

Pointing toward an aggressive attitude on the positive side of maintaining American health and seeking further implementation of point 2 of the National Health Program of the AMA,¹ the following resolution was introduced, and passed the House:

WHEREAS: (1) No amount of medical care of persons already sick will seriously reduce the incidence of illness; (2) the traditional position of the American Medical Association has been one of firm support of preventive public health services; in fact, this constitutes part 2 of the 10-point health program of the American Medical Association; (3) large numbers of local areas and counties in the United States are not now and never have been covered by adequate sanitary and preventive services; (4) the Surgeon General of the USPHS has announced that one of his first major objectives is assistance in development of local health units throughout the Nation to meet this fundamental need; and (5) the medical profession has now an opportunity to exert constructive leadership in this matter;

THEREFORE BE IT RESOLVED: (1) That the House of Delegates reaffirm its abiding interest in the necessity for the provision of adequate public health preventive services at the local and community level, including sanitation and all the services usually considered essential for the preservation of the public health; (2) that the Surgeon General of the United States Public Health Service be commended for, and encouraged in, his efforts for the further development of local health units for these purposes; and (3) that the Board of Trustees be instructed to pursue actively all proper procedures to the end that local public health service shall become adequate throughout the Nation.

¹ J. A. M. A., 1948, 136, 261.

² Dickinson, F. G.: M. Ann. District of Columbia, 1948, 15, 520.

³ Dickinson, F. G., and Welker, E. L.: "What Is the Leading Cause of Death? Two New Measures." Bulletin 64, Bureau of Medical Economic Research, AMA, 1948.

III. ACCIDENT PREVENTION: Recognizing the startling discoveries recently announced by the Bureau of Medical Economic Research^{2, 3} regarding the serious increase in loss of life and health through accidents, the following resolution was introduced and passed:

WHEREAS: The American Medical Association has in the past coöperated with the National Safety Council in its efforts to reduce the incidence of deaths and injuries from accidental causes; and

WHEREAS, the studies that have been made by the Bureau of Medical Economic Research of the American Medical Association have established the fact that fatal accidents cut off more years from the working lifetime of the American people than any one natural cause of death; and

WHEREAS, in the recent report made to the President by the Administrator of the Federal Security Agency, it was stated that 40,000 deaths annually from accidents were preventable;

THEREFORE BE IT RESOLVED, that the Board of Trustees be instructed to coöperate in every possible way with the National Safety Council and with every other agency, both public and private, concerned with accident prevention, to the end that research in accident prevention be further stimulated; that this excessive drain upon hospital and medical facilities be lessened, and that the appalling loss of working years be reduced.

It may be noted that these last two resolutions tend to "accentuate the positive and eliminate the negative," and that if they could be carried to a successful conclusion would contribute more to the health and productiveness of the Nation than any method for the distribution of medical care to persons already ill or disabled.

Red Cross Blood Program: One of us (H. P. R.) attended the meeting of the AMA Liaison Committee with the American Red Cross, of which he is a member.

A new departure was the extending of the scientific sessions two days beyond the meeting of the House of Delegates. These sessions, primarily for the benefit of the general practitioner, are proving of great value in lending emphasis to the high place in American medicine attained by the non-"specialist." The total registration was 4,526.

(Continued on page 57)

MEDICAL AND HOSPITAL CARE PREPAYMENT PLANS*

PAUL R. HAWLEY, M.D.

Chief Executive Officer, Blue Cross-Blue Shield Commissions

Some five months ago I addressed the Conference of Presidents and Other Officers of State Medical Associations. At that time I predicted that, unless organized medicine at once assumed a position of leadership in the solution of the very real problems of medical economics, we would have state medicine within three years. It now appears that I spoke more wisely than I knew. I assure you that I had no advance information upon the outcome of the November election. I based my prediction entirely upon my acquaintance with the thinking of large groups of American citizens. I made it with full expectation of a Republican victory in the Presidential election. I have been very much surprised at the reliance placed by many physicians upon both the ability and the intent of the Republican Congress they anticipated.

The necessity for some kind of prepayment of medical care had become so acute, and the number of people adversely affected by the lack of an adequate program had become so great, that the rapid development of a program of one type or another was inevitable, regardless of the political complexion of the next national administration. Not even the most conservative Republican Congressman dares resist the pressures exerted by his constituents if he desires to continue his political career—and what Congressman does not? I have frequently told of my conversations with conservative Senators and Representatives, and of their invariable insistence that the only hope of defeating a Government medical care program lies in broadening the scope of the voluntary plans. They emphasize over and over again that they cannot maintain a negative attitude toward a problem they know to be real, that their resistance to a Government compulsory program must be based upon a positive support of voluntary plans that are, in fact, solving the problem. But the sorry fact is, and Congressmen know this as well as do we, that not yet are the voluntary plans doing a proper job—not yet are they offering a fully acceptable solution to the problem—and the principal reason for their

failure is to be found in the attitude of organized medicine toward them.

I think the relatively sudden development of the necessity for the prepayment of medical care can best be explained by this example: When this country was first settled, most of the homes were log cabins. Even the furniture was made by hand by the family. Very little money went into such a home; and when it was destroyed by fire, it could be replaced within a few days with little or no cash outlay. If there were neighbors at hand, a community log-rolling would reduce the time of replacement to 24 hours. No insurance was carried on these homes because even a total loss was far from being a catastrophe. At worst, it was but a temporary inconvenience.

The situation is quite different today. Our homes are built of processed materials. They are built by expert workmen who work short hours for high wages. We require that they be equipped with much expensive plumbing and central heating. They are furnished with costly rugs, draperies and furniture. Electric refrigeration, deep freezers, radios, pianos, television sets, and all the other gadgets that make life comfortable and pleasant, are to be found in most modern homes. All these luxuries add greatly to the cost of a home.

There are home owners who can afford to replace their homes without assistance from insurance. But even these invariably protect their investment with insurance because it would be some hardship to have to bear the entire loss from their own capital. On the other hand, the great majority of home owners could not replace their homes from their own capital. If their homes were destroyed by fire, they could replace them only by borrowing money. For these, insurance is a necessity.

Compared with the medicine of today, the medical practice of fifty years ago was a very simple art. When illness struck suddenly in a family, the family physician was called. He came on a street car, or by horse and buggy, or afoot. He brought with him little more than a stethoscope, a clinical thermometer, and his hands and eyes and ears. Even very serious illnesses were treated in the home, mostly with family nursing. Comparatively little surgery

* Delivered at the Conference of State Medical Association Secretaries and Editors of the American Medical Association in St. Louis, Missouri, November 29, 1948.

was attempted, because major surgery was still a dangerous practice to be restricted largely to cases of the gravest nature; and much of the surgery that was done was done in the home. There was no X-ray, no electrocardiograph, no basal metabolism apparatus. Clinical laboratories confined their contributions to diagnosis to crude urine tests. Medical practice was simple. Consequently medical care was cheap. Almost every employed person could afford the best in the medical care of that day, especially if he were permitted to pay his bill in installments. Even the gravest of illnesses were rarely a financial catastrophe, because in them the case fatality was high, and death stepped in to limit the medical bill.

Medicine has advanced more in the past 50 years—yes, in the past 25 years—than it has in any two or three previous centuries. This advance has been almost exclusively in the field of precision methods, both of diagnosis and of treatment. Few of these precise technics can be practiced in the home; and the seriously ill, not so much of their own volition but at the behest of the physician, must go to the hospital, if only for diagnosis. Major surgery has become as common, and almost as safe, as the blood-letting of the 17th and 18th centuries. Hospitals have been elevated far beyond the level of pest-houses, which were inexpensive in operation. Hospitals are expensive to build, expensive to equip, expensive to operate. Considering hours of duty, hospital personnel are paid three times as much as they were 15 years ago. A much greater proportion of hospital personnel must now be technically trained to conduct and interpret the new, sensitive diagnostic technics. Then compare costs of sheets and blankets, food and fuel.

The rise in charges of the physician and the surgeon has not kept pace with the devaluation of the currency. But it takes more of them to treat a case properly. So, medical care of today has become as complex and as efficient as the modern home. It is no longer as primitive as the log cabin; and it is consequently much more expensive. When it is necessary in a serious case, it throws a much heavier financial burden upon the family than it did only a few years ago.

Medical care is the only human necessity the need for which cannot be predicted in advance. Even in a period of rising costs, it is easy to estimate with

accuracy next month's cost of food, of clothing, of rent, and every other necessity save medical care; and no one can predict this even 24 hours in advance.

These two characteristics make medical care an ideal risk for insurance; it is a necessity, and the need for it, while unpredictable in the individual case, is predictable with reasonable accuracy in the mass. When insured against the cost, even serious illness is no longer a catastrophe, just as the loss of a home by fire, if it is insured, is not a catastrophe. There is as much justification for prepayment of medical care as there is for carrying insurance on a home, or on any other unpredictable risk.

There are yet those who say that, if people can afford to pay for automobiles and fur coats, they can afford to pay for medical care without insurance. That contention is quite valid. Those who spend their substance on unnecessary luxuries are improvident, it is true. But the inescapable fact is that people will spend almost their last cent for automobiles and fur coats, and lay nothing by for unexpected necessities. I don't believe that the medical profession, or anyone else, can change human nature to the extent of persuading any great number of people to budget personally for medical care.

On the other hand, when the need for medical care arises, it is accompanied by such emotional factors that people, instead of blaming themselves for their improvidence, tend to develop great resentment toward doctors and hospitals. Often one such experience is sufficient to convert a family to the support of socialized medicine. You will remember that the politicians plumping for socialized medicine are accustomed to cite horrible examples of catastrophic illnesses which plunged families into bankruptcy. It is not difficult to find numerous examples of this misfortune, and thus the friends of socialized medicine are increasing daily.

It seems to me that these facts all add up to the answer that medical care insurance has become a necessity, and that it offers one of the greatest, if not the greatest, weapons against the nationalization of medicine. If you will agree with this, the next question is: what kind of medical care insurance is best?

After the nonprofit prepayment plans had broken the ground and prepared the soil, quite a large number of commercial insurance companies entered the field. So far as the public is concerned—and, for that matter, so far as doctors are concerned—com-

mercial companies can be divided into two classes, the good and the bad. I hope most devoutly that such ethical companies as Metropolitan, Equitable, Prudential, John Hancock, and the like never quit the field. I might add, in passing, that none of these has as yet shown any indication of discontinuing this phase of their business. These companies offer honest contracts at reasonably honest prices. They are the finest kind of competition for the nonprofit plans because our administrative costs must be kept low for us to compete with them. They hold two great advantages over the nonprofit plans: they can offer a complete package of medical care insurance, and they can write Nation-wide contracts. Their disadvantages are that they can, with few exceptions, offer only indemnity benefits, which is not so great a disadvantage at present in medical as it is in hospital insurance. Furthermore, we have reason to believe that, in general, their administrative costs are higher than those of the nonprofit plans, and that they return less of the subscribers' dollars in benefits. This makes the protection they offer more expensive to the public.

But the plague of the medical care insurance field is the unethical companies in the game for all they can get out of it. It seems to me most unfortunate that some medical societies have recommended some of these companies to their patients. One of these companies, indorsed by a state medical society, is now under Federal indictment for using the mails to defraud. I cannot imagine that this increases the public confidence in the medical profession.

Let those doctors who advocate leaving all medical care insurance to commercial companies be sure to distinguish the good from the bad. There are many more bad companies in the field than good.

Now, we come to the nonprofit plans. These plans offer several advantages, both to the public and to the professions. They are the least expensive of all medical care insurance. They return more of the subscribers' dollars in benefits than any other class of carriers. They are locally, rather than nationally, controlled, and are, therefore, tailored to the specific needs and facilities of the areas they serve. Their policies are controlled by professional people, and they cannot wander into dangerous fields. On the other hand, they have one great weakness, a weakness that, if not soon corrected, will completely destroy them. This weakness is that,

as yet, they have no machinery for dealing with national accounts.

This deficiency has become a serious matter only recently. So long as the health protection of employees of national employers was left to the discretion of each local plant, and paid for, in whole or in part, by the employees, local Blue Cross and Blue Shield Plans enjoyed the greater part of this business. Now that welfare funds, set up at the national level, are rapidly becoming the rule in large industries, and now that the National Labor Relations Board has ruled that employers must negotiate on the question of social security benefits to be paid wholly by the employer, these national accounts can no longer be negotiated upon the local level. The decision is made by the national employer and the national union, and all locals are bound by it. Already the nonprofit plans are losing thousands of old and valued subscribers solely because they cannot offer a uniform national contract. The danger is not that the nonprofit plans will not grow; it is that they will be driven from the field entirely, and all because of this defect in their organization.

As you know, proposals for the correction of this defect were recently submitted to Blue Shield Plans, and now await consideration by the House of Delegates of the American Medical Association. Also, as you know, these proposals have aroused much controversy. It is most unfortunate that many gross misrepresentations have been disseminated throughout the profession. To correct all such misrepresentations would require much more time than is at my disposal. Let me only state briefly the platform upon which I stand:

First, I believe that American medicine is the finest medicine in the world. I believe that it has attained this eminence because of the blessings of free enterprise, and that any effort to regiment it is bound to result in a lowering of its quality.

Second, I believe that the general pattern of the private practice of medicine has fully met all requirements for medical care at least until the present time; and that, when it no longer meets these requirements, this pattern will be changed through evolution initiated by the medical profession itself.

Third, I do not believe, as I have been falsely charged by a group of physicians, that the consumer of medical care should dominate medical practice. I do not believe this, if for only one reason—the con-

sumer of medical care has proved himself to be a very poor judge of the quality of medical care. It is for this reason only that too many poor physicians still flourish. I believe that so much of the pattern of medical practice as determines its quality is the full responsibility of the medical profession. But I have said previously, and I repeat it here, that I believe that the consumer has a great stake in medical care, and especially in the field of the economics of medical care. So long as the consumer does not dictate the pattern of medical practice, so long as he does not set the costs, I believe him to be fully within his rights to determine how he shall pay for his medical care. He has the right to pay from his capital, or through voluntary insurance against its cost. This right may be taken away from him by Government compulsion.

Fourth, I believe that Blue Shield Plans should be locally sponsored and locally controlled. I believe firmly that they should be controlled by physicians; but I think it a very wise measure, and one which pays manifold in public good will and confidence, if the consumer of medical care is given minority representation upon the governing boards of Blue Shield Plans.

Fifth, I believe—nay, I am fully convinced—that Blue Shield must have, without further delay, a national agency that can enroll the employees of national employers in Blue Shield, and that no agency of this type can succeed unless it is able to underwrite the differences in benefits that now exist among the various plans. It is useless even to talk about national enrollment in the absence of the ability to smooth these differences. If local plans are forced to offer a standard contract, as has been suggested, this is most certainly coercion and national control. This we do not want.

Sixth, I believe that a full service contract is not only possible but most desirable in hospital care insurance. I do not believe it possible in medical care insurance, certainly not at this time. If and when it does become possible, and desirable, Blue Shield Plans will offer such a contract.

I could go on and on in listing my specific beliefs; but I think it enough to say that I believe only in those things which will preserve and advance medicine in this country; and that I am violently opposed to any program which is inimical to the best interests of medicine.

But what about the possibility of a Government program before long? I wish I could be optimistic about the future of medicine. I have been accused of resorting to the psychology of fear in my efforts to induce the medical profession to support a progressive program for the prepayment of medical care. There may be some truth in this accusation. Quite frankly, I have been very much afraid myself. I have seen very clearly the handwriting on the wall. But this I can say, whatever efforts I have made to frighten the medical profession now appear very puny in comparison with the effect of the last election. There is no question but that now the medical profession is thoroughly frightened. Whether or not this fear will be converted into constructive action, or whether it will result only in aimless panic, remains to be seen.

There is now being circulated right here in St. Louis the assurance that the medical profession need not worry about the enactment of a compulsory Government program. Last week I heard Dr. Joe Lawrence, of the American Medical Association office in Washington, make the same statement in a public speech. I strongly suspect that Joe Lawrence didn't think that one up himself, but that he was saying the piece he was instructed to say. He was immediately taken to task by Dr. Marjorie Shearon for making such a palpably untrue prediction; and as for myself, I could scarcely believe my ears. Such statements are exactly like giving a half-grain of morphine to a patient with an acute surgical belly. It may relieve the pain but it does the patient no other good.

Since the election, I have busied myself in sampling opinion on both sides of this question. I hasten to assure you that I have neither conducted my own poll nor consulted professional pollsters. I shall confine myself to giving you a few opinions from sources that I consider highly reliable.

A gentleman who is very close to the President described the President's devotion to a compulsory health program as "an obsession." This is in agreement with the experience of a few friends of mine who have tried to discuss compulsory health insurance with the President, in person. The President's sincerity of purpose cannot be questioned. I do not believe for one moment that he has advanced his health program for political purposes. I am convinced that he believes in it fully, and that he

honestly believes it to be a good thing for the people. But it is also clear that his belief has gone beyond the bounds of a reasoned conviction, and that it has become an obsession. This being true, you may expect him to push this program vigorously and stubbornly. Efforts to change his mind will be wholly futile.

Mr. Ewing's position is based upon different motives, but is equally firm. Mr. Ewing is a very able man, and a very astute politician. Furthermore, he has political ambition. He has abandoned a very lucrative law practice to devote the rest of his life to the public service, and you may expect that he will be satisfied with no mediocre rewards. Sensing that the cost of medical care is a matter of dissatisfaction among the majority of our people, he seized upon this discontent as the issue upon which he would climb to political heights. You must admit he has made remarkable progress within a very short space of time. Politically unknown a year ago, he is today as well known as any cabinet officer and better known than most. He appears to have the complete confidence of the President, and his demonstrated loyalty to his chief would seem to justify the favorable position he occupies in the Administration.

I would not question Mr. Ewing's sincerity. Surrounded as he is by the most radical thinkers in the field of health, and knowing absolutely nothing himself about the problems of medical and hospital care, as he has demonstrated upon more than one occasion, it is not hard for him to be persuaded that what he considers best for his political future is also best for the people. The situation was ideal for his conversion to the principles of socialized medicine. You may expect Mr. Ewing to pursue his objective with the ability and industry he has already displayed. It will be useless to attempt to change his thinking.

I am most disturbed, however, by a remark credited to Senator Thomas, of Utah, only a few days ago. As you know, Senator Thomas will be Chairman of the Senate Committee which will pass upon all health legislation. He is a real scholar, a most erudite gentleman. Speaking of some part of the campaign of the medical profession against compulsory health insurance, Senator Thomas said: "I don't hate doctors—I hate liars." The inference is quite clear. It is an eloquent comment upon the miserable public relations we have enjoyed for some years.

Only a few days ago I had a long talk with one of the foremost advertising executives in the United

States. This gentleman has, for many years, devoted much of his valuable time to furthering voluntary prepayment of medical care. I asked him, first, whether it is possible to oppose compulsory health care successfully; and if so, what kind of a program would, in his opinion, be most successful.

He replied that he thought it was possible to defeat compulsory health insurance, but that he feared it was not a probable event, for the simple reason that the medical profession would not unite in any positive, constructive action. Their negative position, said he, had cost them the confidence of the majority of the people. But he outlined a program of attack, which I pass on to you:

1. To enroll 50 million more people in the voluntary nonprofit plans in the next 18 months. To do this we must first solve the national enrollment problem to the complete satisfaction of the interested groups; and, second, we must solve the problem of rural enrollment and the enrollment of small groups of employees. Individual enrollment must also be increased.

2. We must educate the people in the dangers of Government medicine, and in the advantages of voluntary medical care insurance. To do this, we must reach into the homes with our educational program, through magazines and through women's clubs; but we must do it with facts, not with unsupported statements.

3. We must restore the confidence of the people in the unselfishness of the medical profession. This, said he, will require new voices to be raised in defense of medicine. Too many people, claiming to speak for American medicine, have done irreparable harm to medicine.

I have no personal stake in this fight. Compulsory health insurance will not make one penny's difference in my income, except to raise it. I accepted this job in preference to others that offered much more pay. I have the best reason in the world to believe that, if I still want to work, I can find another job not affected by compulsory health insurance. I am in this fight because I am devoted to American medicine. I shall remain in the fight until we are whipped, or until I am replaced.

If I appear to be discouraged about the situation, it may be because the most exhausting exercise in the world is to have to battle with friends as well as with foes.

I shall close by quoting from the *Washington Report on the Medical Sciences* of November 22. I don't know how many of you know Gerald Gross, who publishes this *Report*. I have known Jerry Gross for a long time—when he was one of the first-rank reporters on the *Washington Post*. He is an able and an experienced journalist, and he knows the Washington political scene as few do.

Jerry quotes Doctor Fishbein as saying that compulsory Government insurance "would represent a

revolution"; and then Jerry goes on to say that if revolution is what it is to be, it is a revolution that will be hastened, rather than averted, by dire warnings and epithets instead of constructive counter-measures.

He is so right. This week will tell the tale as to whether American medicine is now ready to undertake constructive action, or whether it will continue to fight socialization of medicine with "dire warnings and epithets."

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. Most of these engagements were filled through the Society's Speakers Bureau, which is headed by Dr. James A. Gannon.

Date	Speaker	Subject or Title	Organization
October 26	Dr. Isadore Rodis	"Building Emotional Health"	Parent-Teachers Association of Takoma School
November 16	Dr. P. S. Constantinople	"Sinus Infection"	Jewish Community Center
November 17	Dr. James A. Gannon, Sr.	"Cancer"	Washington Branch of Workmen's Circle
November 18	Dr. Dorothy Donley-Dowl	"The Maladjusted Child"	Southwest Neighborhood Council
November 26	Dr. James A. Gannon, Sr.	"Medical Superstitions"	Washington Round Table
November 30	Dr. A. Barklie Coulter	"Tuberculosis and the Washington Chest X-ray Survey"	Jewish Community Center
December 1	Dr. Joseph H. Cowan	"Cardiovascular Disease"	Washington Branch of Workmen's Circle
December 6	Dr. Theodore Winship	"Cancer"	Washington Nurses' Association
December 9	Dr. Leonard M. Dub	"Building Emotional Health"	Parent-Teachers Association of Anthony Hyde School
December 10	Dr. Hugh O. House	"Allergic Factors in Obstruction of the Eustachian Tube"	Parent-Study Group of Washington Hearing Society
December 14	Dr. J. Thomas Schnebly	"Conservation of Eyesight"	Jewish Community Center
December 15	Dr. P. S. Constantinople	"Why Be Deaf?"	Washington Branch of Workmen's Circle
December 17	Dr. A. Barklie Coulter	"Tuberculosis"	Kiwanis Club
January 4	Dr. Victor R. Alfaro	"Causes of Deafness"	Jewish Community Center
January 13	Dr. Leonard M. Dub	"Building Emotional Health"	Parent-Teachers Association of Kimball School
January 18	Dr. Edward Cafritz	"Appendicitis"	Jewish Community Center
January 19	Dr. James A. Gannon, Jr.	"Diabetes in the Adult"	Washington Branch of Workmen's Circle

COMPULSORY HEALTH INSURANCE COSTLY AND IMPRACTICAL*

DOROTHY THOMPSON

Columnist

It seems certain that we are going to take another step on the road to bureaucratic collectivism by the passage of a compulsory health insurance bill, to which President Truman is pledged.

The United States Public Health Service is for it, as every Government agency is always for a vast extension of its powers. The labor unions and farmers' organizations are for it because it sounds good. Industry would like to saddle the Federal Government with the expense of workmen's compensation cases. Professional social workers foresee great opportunities for themselves. And a mere 150,000 physicians, 90 per cent of whom are against it, cannot buck the trend. Besides, they are supposed to be "prejudiced," on the current theory that those who know most about anything are not reliable witnesses.

Also, the opposition has not been intelligent. It has ranted against "socialization" as though the mere word had conjuring powers. Let this opponent, therefore, make herself clear. I am not against compulsory health insurance because it is "socialistic," but because it is the application of national socialism in the least appropriate field. Also, I have lived under such medical systems in England, Austria and Germany, and they were awful.

COST TOO MUCH

They cost the people far too much. They provide inferior services at a high price. They are incapable of dealing with really serious and complicated cases. They result in two sorts of medicine—good medicine for the well-to-do; and bad for the masses, at high cost to those who can least afford it. And they build up a vested interest of physicians and bureaucrats which the people will never get rid of.

The great joker in all these schemes is that they are put forward as "free," meaning something for

nothing. Let their proponents at least tell the truth. What is advocated is compulsory insurance.

Every worker in this country will have the cost subtracted from his pay envelope, and added (by his employers) to the price of everything he buys. He will be paying for unused aspirins when he needs the money for oranges. He will be supporting innumerable filing clerks—a horrendous paper staff for 150,000,000 people. When and if he gets ill, he will find himself as one of 50 patients (half of them hypochondriacs bent on getting service for their money) whom a physician must examine in an hour!

And if he really is ill—and finds that under the slap-happy methods of overworked doctors, whose fees are assured anyhow, he gets not better but worse—he finally will, in desperation, consult one of those private physicians who refuse to join the assembly line and, atop all he already has put up, week by week, pay a private fee.

How do I know this? Because I have experienced it.

BETTER SERVICE NEEDED

Just why this most inventive country seems compelled blindly to copy social measures originating elsewhere is baffling. We need many, many more hospitals. The existing hospitals need public aid, since the sources of private support are increasingly drained off in taxes. And we need more genuinely free medicine for people in real jams.

But before Congress passes any bill for universal sickness insurance—falsely called "health" insurance—it owes it to the American people to tell them exactly what a person with, say, an income of from \$2,000 to \$3,000 a year is going to have to pay over a working life of 40 years to take care of his illnesses, and just what services the Government positively guarantees him in return for his money. Will it, for instance, sign on the dotted line that if his wife is in labor, the Government guarantees a bed and a physician at the critical moment?

Don't make me laugh! I've lived under these schemes.

* From Miss Thompson's column, "On the Record," which appeared in *The Evening Star*, Washington, December 21, 1948; reprinted by special permission of Dorothy Thompson and The Bell Syndicate, Inc.

Washington Physicians of Yesterday



XLIII. JOSEPH TABER JOHNSON, M.D., A.M., Ph.D., LL.D.

About seventy-five years ago the field of gynecologic and abdominal surgery, previously inoperable, was made possible and opened up for development by the introduction of antiseptic methods. Among the eminent pioneers and exponents of gynecology from those early days was Dr. Joseph Taber Johnson, of Washington, D. C., who attained national distinction in that field and brought luster to the Washington medical profession.

Of classical New England ancestry, being a descendant of John Alden and Priscilla Mullens of Mayflower fame and romance, Dr. Johnson was born in Lowell, Massachusetts, on June 30, 1845. He was educated at Rochester Academy, in Massachusetts, to 1859, and in Columbian College of Washington 1860-62. He received the degree of M.D. from Georgetown University in 1865, and from Bellevue Hospital Medical College in 1867. In 1870-71 he studied in Europe, receiving a Diploma in Obstetrics from Vienna. Honorary degrees conferred on him were A.M. from Columbian University in 1869, and from Georgetown University Ph.D. in 1889, and LL.D. in 1914.

Dr. Johnson began practice in Washington in 1867, and was one of the leading gynecologists of this city until his retirement in 1913. He devoted his attention to his specialty from the very first in his hospital and teaching activities. Of the noteworthy group of able gynecologists contemporary with him in Washington he was the senior in pri-

(Continued on page 58)

DIRECTOR OF GROUP HOSPITALIZATION, INC. RETIRES

Sixteen years ago Mr. E. J. Henryson conceived a voluntary prepayment plan of hospital care to be made available to residents of Washington by an organization of public-minded citizens. Today, he is officially retired as the first Director of Group Hospitalization, a position he has held since February 16, 1934. The retirement of Mr. Henryson, whose determination and devotion to a humanitarian cause has been a major factor in the development of Group Hospitalization, Inc., was upon the advice of his physician.

His successor is F. P. Rawlings, Jr., another Group Hospitalization "pioneer" who has been identified with the Washington Plan since shortly after it was established.

For more than three decades Mr. Henryson's principal interest has been in the field of public health and welfare. Since early 1932, when the basic work of developing Group Hospitalization, Inc. was begun, his chief concern has been to bring facilities for hospital and medical care within easier reach of everyone by means of voluntary prepayment.

"The future offers great challenge to the voluntary prepayment movement," Mr. Henryson said recently. "How that challenge is met will be the answer to our future. Individual voluntary plans, Nation-wide, each serving the public adequately and satisfactorily, will leave no place for national or state medicine. Personally I have confidence we can meet the challenge."

After attending Luther College, Decorah, Iowa, and Minnesota College of Law, Minneapolis, he set up and operated a Bureau for Employment of the Handicapped in Minneapolis. This was a forerunner of that state's rehabilitation agency. During World War I he was attached to the Personnel Office, Medical Department, American Expeditionary Forces. Receiving his discharge in France, he remained overseas and, during 1919-20, set up and conducted a survey of the rehabilitation and employment of disabled soldiers in the allied countries, including the United States, under auspices of the Inter-Allied Committee in Paris.

Returning to Minnesota in 1921 he engaged in organization work for the Public Health Association of that state and the following year became the Association's business manager and editor of the *Minnesota Health Journal*. In 1923 he established

the Henryson Service Bureau, publishers of health literature for use by state and local health boards, operating the Service for seven years.

In 1931 Mr. Henryson was called to Washington as the first paid executive of the Health Committee (now the Health Council and Hospital Council), a section of the Council of Social Agencies of Washington, D. C., serving until early 1933. For more than a year, Mr. Henryson and other public-spirited citizens, including Mr. Joseph H. Himes, who has



E. J. HENRYSON

Director, Group Hospitalization, Inc., 1934-48

served continuously as Group Hospitalization's first President, had been laying the foundation for a voluntary prepayment plan to serve the Washington area. When Mr. Henryson resigned as the executive of the Health Committee, he was made Secretary of the Committee on Group Hospitalization and later, when Group Hospitalization was incorporated, he was named temporary secretary of the Corporation until he was retained as Director early in 1934.

He was a member of the Advisory Committee of the American Hospital Association, serving as Secretary of the Section on Group Hospitalization in 1937-38. He also was one of the group which

organized the National Conference of Group Hospitalization, serving as Chairman of its Actuarial Committee.

One of Mr. Henryson's last major contributions to the voluntary prepayment movement before his retirement was the counsel and assistance he provided when members of the medical profession established MEDICAL SERVICE OF THE DISTRICT OF COLUMBIA as a medium through which they could offer the public their plan for voluntary prepayment of surgical care. The physicians' plan, which was first offered last April, is administered by Group Hospitalization, Inc.

POSTGRADUATE COURSES

The program of intensive postgraduate courses presented by The George Washington University School of Medicine will begin January 24 and extend through May 13, 1949. Fifteen separate courses are scheduled, including most of the medical specialties. The following courses will be offered in the fourth annual series:

(2) Psychosurgery	January 24-28
(3) Psychiatry	January 31-February 11
(4) Therapeutics	January 31-February 4
(5) Gastrointestinal Problems in Pediatrics	February 7-11
(6) Obstetrics	February 14-18
(7) Gynecology	February 21-25
(8) Anesthesiology	February 28-March 4
(9) Surgical Physiology	March 7-11
(10) Abdominal Surgery	March 14-25
(11) Bone and Joint Surgery	March 28-April 1
(12) Neoplastic Diseases	April 4-8
(13) Metabolic Diseases	April 11-15
(14) Thoracic Diseases	April 18-22
(15) Cardiovascular Diseases	April 25-May 6
(16) Gastroenterology	May 9-13

These courses are planned primarily for busy physicians who can spare only a short time away from their practice but who wish information on recent advances in their fields. For those physicians who wish a review before specialty board examinations, the following combinations of courses are recommended: for the psychiatrist, courses 2 and 3; for the obstetrician-gynecologist, courses 6 and 7; for the surgeon, courses 7, 8, 9, 10, 11 and 12; for the internist, courses 13, 14, 15 and 16.

A large guest faculty from other medical schools and clinics will supplement the local staff.

As part of the postgraduate instruction, a series of evening programs will be presented, open without charge to physicians and medical students in the Washington area. Most of these evening sessions, numbering eighteen in all, will be in the form of clinics. They will be known as the Kellogg Clinics and Lectures, in commemoration of financial support received from the W. K. Kellogg Foundation.

In the 1948 series, 525 physicians were enrolled, representing 36 states, the District of Columbia and 13 foreign countries. Inquiries about the program should be addressed to the Director of Postgraduate Instruction, The George Washington University School of Medicine, 1335 H Street, N.W., Washington 5, D. C.

MEETINGS

Wednesday, February 16

PANEL DISCUSSION ON THE NEWER ANTIBIOTICS—AUREOMYCIN AND CHLOROMYCETIN

Speakers and subjects to be announced.

Wednesday, February 23

The following program will be presented by faculty members of the George Washington University School of Medicine: "Pain on Right Side Exclusive of Appendicitis," ARCH L. RIDDICK, M.D., Clinical Professor of Surgery "Abdominal Pregnancy," JOHN PARKS, M.D., Professor of Obstetrics and Gynecology "The Diagnosis of Acute Hematogenous Tuberculosis," SOL KATZ, M.D., Adjunct Clinical Professor of Medicine "Amoebic Dysentery," MAURICE MENSCH, M.D., Clinical Instructor in Medicine

MEMBERSHIP

The following applicants for membership will be voted on at the meeting of the Executive Board, February 21, 1949:

For Active Membership

George J. Carroll, George Washington University—1944
Robert D. Doty, Johns Hopkins University—1943
Geneva E. Goodrich, McGill University—1936
Robert P. Hill, Indiana University—1935
Melvin T. Johnson, State University of Iowa College of Medicine—1928
Althea Kessler, Woman's Medical College of Pennsylvania—1938
Lois I. Platt, University of Maryland—1946
Joseph M. Rom, University of Minnesota—1933
Stephen S. Sgambati, Georgetown University—1946

News and Personals

A regional meeting of the American College of Physicians will be held in Washington on Saturday, February 19, 1949. The participating constituents will be the District of Columbia, Maryland, the Army, the Navy, the Veterans Administration, and the U. S. Public Health Service. The meeting will be a one-day affair with luncheon at Harvey's between the morning and afternoon scientific sessions.

An unusually interesting scientific program has been arranged. The subjects covered will be those of current interest and will be presented by men who have themselves participated in the advancement of knowledge in those fields. Two panel discussions will be interspersed among a series of papers by individual physicians. Dr. Walter W. Palmer of New York City, President of the American College of Physicians, has been invited to attend as well as several other officers and the Executive Secretary, Mr. E. R. Loveland. Short talks will be given by some of these officials.

Dr. Wallace M. Yater, Governor of the College for the District of Columbia, is arranging the meeting, which will be held in the Medical Society's building. The opening session is scheduled for 9:45 a.m.

The first Annual Scientific Assembly of the American Academy of General Practice will be held in Cincinnati, Ohio, at the Netherlands Plaza Hotel, March 7, 8 and 9. There will be no registration fee for members. Non-members of the Academy may attend the Assembly as guests on payment of a registration fee of \$5. Banquet tickets will be sold at \$5 per plate. Members wishing to make reservations may do so by addressing the Chairman, Subcommittee on Hotels, American Academy of General Practice, Dixie Terminal Building, Cincinnati 2, Ohio.

The AMA's Forty-fifth Annual Congress on Medical Education and Licensure will be held in the Red Lacquer Room of the Palmer House, Chicago, February 7 and 8. Immediately preceding the Congress, the following open meetings will be held: Fourth Annual Conference on Rural Health,

CALENDAR OF MEETINGS

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| December 1 | Diabetes Association of D. C. |
| December 2 | Executive Board of Woman's Auxiliary
Section on Neurology and Psychiatry |
| December 3 | Program Committee
Committee on Arrangements for Sectional Meeting of American College of Surgeons |
| December 4 | Washington School of Psychiatry |
| December 7 | Diabetes Association of D. C. |
| December 8 | Scientific Meeting of Society
Woman's Auxiliary |
| December 9 | Subcommittee on Industrial Medicine |
| December 11 | Washington Psychoanalytic Society |
| December 13 | Board of Censors |
| December 14 | District Dental Society
Registered X-ray Technicians of Washington |
| December 15 | Scientific Meeting of Society |
| December 16 | Section on Anesthesiology |
| December 17 | Grievance Committee
Committee on Cancer Control |
| December 20 | Executive Board
Board of Censors |
| December 21 | Board of Censors
Selective Service Association |
| December 22 | Business Meeting of Society |
| December 28 | Section on General Practice |

sponsored by the Committee on Rural Health, February 4 and 5; meeting of the Advisory Board of Medical Specialties, February 6; National Conference on Medical Service, sponsored by officers of the state medical societies, February 6.

Physicians writing to the Palmer House for reservations should refer to the Annual Congress on Medical Education and Licensure in making their request.

The American Board of Obstetrics and Gynecology will hold its next written examination and

review of case histories (Part I) for all candidates in various cities of the United States and Canada on February 4, 1949. Candidates who successfully complete the Part I examination proceed automatically to the Part II examination, to be held at the Hotel Shoreland, Chicago, May 8-14. Application forms and bulletins giving details of all recent changes in Board requirements and regulations will be mailed upon request to the Board, 1015 Highland Building, Pittsburgh 6, Penna.

The Council on Postgraduate Medical Education of the American College of Chest Physicians and the Laennec Society of Philadelphia announce a **Postgraduate Course in Diseases of the Chest** to be held at the Warwick Hotel, Philadelphia, February 28-March 5. This course will emphasize the recent developments in all aspects of diagnosis and treatment of diseases of the chest. The tuition is \$50.00. The course is open to all physicians, although the number of registrants will be limited. Application may be made through the Executive Offices of the American College of Chest Physicians, 500 North Dearborn Street, Chicago 10, Illinois.

The Washington Society of Pathologists announces a joint **Baltimore-Washington Seminar on Tumors of the Skin**, to be held in the auditorium of the Medical Society of the District of Columbia on February 5, 1949, from 10:30 a.m. to 4:30 p.m., recessing at noon for lunch. Pathologists, dermatologists and other physicians in Washington and surrounding areas are cordially invited to attend.

Major Colin F. Vorder Bruegge will act as Chairman and Moderator of the Seminar; he will be assisted by Drs. Robert C. Dunn of the Marine Hospital, Baltimore, and Dr. Oscar B. Hunter, Jr., of Doctors Hospital, Washington. Colonel James E. Ash, Dr. Arthur A. Allen and Dr. Elson B. Helwig will be the principal discussants.

The American College of Surgeons has scheduled a Sectional Meeting in Washington, March 15 and 16, at the Hotel Statler. The Committee on Arrangements held a luncheon meeting, December 4, at the Mayflower Hotel, to make preliminary plans. The Committee is composed of the following members: Dr. Daniel L. Borden, *Chairman*; Drs. Charles Stanley White, Jerome F. Crowley, Ralph M. Le-

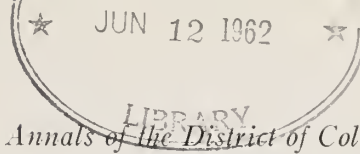
Comte, John Minor, Brian B. Blades, Fred R. Sanderson, and Messrs. Robert Bryant and Theodore Wiprud. Dr. Harry H. Kerr is Secretary of the Committee.

The **Montgomery County Medical Society** will hold its next regular meeting, with dinner preceding, February 15, at the Manor Country Club, Norbeck, Maryland. An address on "The Research Program of the National Institutes of Health" will be delivered by Dr. Norman H. Topping, Assistant Surgeon General of the Public Health Service. Discussion will follow by Dr. William H. Sebrell, Director of the Institute of Experimental Biology and Medicine, Dr. John R. Heller, Director of the National Cancer Institute, and Dr. Cassius J. Van Slyke, Director of the National Health Institute.

The **Mississippi Valley Medical Society** announces its Ninth Annual Essay Contest for 1949. The Society will offer a cash prize of \$100, a gold medal, and a certificate of award for the best unpublished essay on any subject of general medical interest (including medical economics and education) and of practical value to the general practitioner of medicine. Contestants must be members of the American Medical Association who are residents and citizens of the United States. The winner will be invited to present his contribution before the 14th Annual Meeting of the Mississippi Valley Medical Society to be held in St. Louis, Mo., September 28-30, 1949, the Society reserving the exclusive right to first publish the essay in its official publication, the *Mississippi Valley Medical Journal*. All contributions must be typewritten in English in manuscript form, submitted in five copies, not to exceed 5,000 words, and must be received not later than May 1, 1949. Further details may be secured from Dr. Harold Swanberg, 209-224 W.C.U. Building, Quincy, Illinois.

"Open Your Heart—and Fight Heart Disease" will be the slogan for National Heart Week, February 14-21. In a campaign for funds which will open February 7 and continue through February 28, the Washington Heart Association will seek \$75,000 as its part in the national goal of \$5,000,000.

At a luncheon meeting, November 29, at the Hotel Statler, plans for the drive were discussed. Address-



ing the meeting were William E. Leahy, District Director of Selective Service, who is co-chairman of the Washington campaign; Dr. Bernard J. Walsh, Secretary of the District Heart Association; and Dr. A. R. Connor, Mr. William E. Cotter, and Mr. J. A. Ade, all from the New York headquarters of the American Heart Association.

Mr. John H. Wilkins, Jr., President of the Wilkins Coffee Company, is General Chairman for the campaign. Following are the members of the Executive Committee who will direct the drive: Drs. Walsh, Bernard W. Leonard, Benjamin Manchester, J. Ross Veal, Clayton B. Ethridge and A. H. Simmons; Dr. John Minor, President of the District Medical Society; and James G. Caposella, Administrator of Emergency Hospital, representing the Hospital Council.

Of the funds collected in the District, 70 per cent will go to the local Association for education, research, and increased community services. The remaining 30 per cent will be forwarded to National Headquarters of the American Heart Association for research and informational programs on the national level.

National Social Hygiene Day will be observed on February 2. The theme this year is "**Protect the Family . . . Stamp Out VD.**" A Social Hygiene Day kit, containing press releases, radio material and sample copies of the latest pamphlet literature in the field will be sent free upon request to the American Social Hygiene Association, 1790 Broadway, New York 19, N. Y.

The newly formed **Hospitalization Fund Committee of the Community Chest Federation** held its first meeting, December 2, at the American Security and Trust Company Building. Mr. Chester Morrill, of the Federal Reserve System, Chairman of the Committee, stated that it will provide a "constructive means through which the Federation of Community Chests in the National Capital Area may be advised regarding the part that it can and should play in the long range aspects of the community's hospital problem."

Representing the Medical Society on this Committee is Dr. Robert H. Groh. Other physicians appointed to the Committee are: Dr. Watson W. Eldridge, who represents the Hospital Service

Agency; Congressman A. L. Miller, Chairman of the House Subcommittee on Health, Education and Recreation; Dr. Daniel L. Seckinger, Coördinator of Health and Hospitals, District Health Department; Dr. Vane M. Hoge, of the U. S. Public Health Service, appointed by the Metropolitan Health Council; and Dr. Winfred Overholser, appointed by the Washington United Community Services.

At the meeting of the **Executive Board**, November 22, approval was given to the appointment of two new committee chairmen. **Dr. Hugh H. Hussey** will serve as Chairman of the Committee on Public Policy, replacing Dr. Harry H. Kerr, who resigned, and **Dr. Walter H. Gerwig** will head the new Committee on Medical Ethics and Deportment.

Another assignment of special interest to readers of the *MEDICAL ANNALS* was made at this meeting. **Dr. R. Lee Spire** has been appointed an Associate Editor, representing general medicine on the Editorial Board.

The Columbia Historical Society and the Bar Association of the District of Columbia, in a meeting in the auditorium of the District Medical Society, November 22, honored four deceased Chief Justices of the United States and a physician by formal presentation of bronze plaques to mark their homes in Washington. Following the exercises a "token" unveiling of one of the plaques was made at the former home of Chief Justice Edward Douglass White, 1717 Rhode Island Avenue, N.W. Plans to unveil the other four memorials were canceled due to inclement weather.

Honored, in addition to Justice White, were Chief Justices Melville Weston Fuller, who formerly lived at 1801 F Street, N.W.; William Howard Taft, 2215 Wyoming Avenue, N.W.; Harlan Fiske Stone, 2340 Wyoming Avenue, N.W.; and Dr. Joseph Meredith Toner, first President of the Columbia Historical Society, who lived at 1445 Massachusetts Avenue, N.W. Presentation of a plaque in memory of the late Chief Justice Charles Evans Hughes had been scheduled but was eliminated from the program because the memorial had not been completed.

Mr. F. Regis Noel, President of the Columbia Historical Society, and Mr. Lowry N. Coe, President of the District Bar Association, spoke briefly. Eulogies for the honorees were delivered by the following:



J. Austin Latimer of the District Bar Association, to Chief Justice White; George E. McNeil of the District Bar Association, to Chief Justice Fuller; Associate Justice Harold H. Burton, to Chief Justice Taft; Major General U. S. Grant III, Chairman of the National Capital Park and Planning Commission, to Chief Justice Stone; and Parke P. Jones, of the Columbia Historical Society, to Dr. Toner.

Among the distinguished guests present at the ceremonies were Chief Justice Fred M. Vinson and Attorney General Tom C. Clark.

Drs. Custis Lee Hall and Leonard T. Peterson are chairman and co-chairman, respectively, of the newly formed committee for the organization of the **Regional Fracture Committee of the American College of Surgeons**. Other members of the committee are Dr. Brian B. Blades; Dr. Milton C. Cobey; Dr. William C. Meloy, for plastic surgery; Comdr. Walter R. Miller, representing the Navy; Colonel August Spittler, representing the Army; Dr. J. Ross Veal, for neurocirculatory traumas; Dr. James W. Watts, for neurological traumas; Dr. W. W. Sager, Chief Surgeon, Metropolitan Police and Fire Department; and Dr. Charles F. Kincheloe, representing the Northern Virginia group.

Dr. Rollo E. Dyer, Director of the **National Institutes of Health**, principal research unit of the Public Health Service, received in behalf of his organization the 1948 Award of Distinction from the American Pharmaceutical Manufacturers' Association in recognition of the Institute's "great contributions to public health through fundamental medical research for the profound benefit of mankind." Presentation of the award was made by Dr. Ernest E. Irons, President-elect of the American Medical Association, at a dinner at the Waldorf-Astoria, December 7.

Two checks totalling \$32,500, to be used for **cancer research** by the **Warwick Memorial Clinic**, were presented to Dr. Cloyd H. Marvin, President of George Washington University, December 7. Mr. Eliot Wadsworth, Vice President of the District of Columbia Division of the American Cancer Society, submitted a check for \$20,000, the largest single grant ever made by the District Division. These funds were raised in Washington during the national cancer campaign last year.

The second check, in the amount of \$12,500, was

presented by Mr. Douglass Poteat, Executive Vice President of the American Cancer Society, of the New York national headquarters. It represented first payment on a grant of \$25,000.

In observance of **Diabetes Detection Week**, December 6-12, the Diabetes Association of the District of Columbia, together with the Lay Society, sponsored an all-day meeting in the Medical Society's building, December 7.

Dr. Hugh L. Wilkerson, Chief of the Diabetes Division of the Public Health Service, and Dr. Frank Allen, of the Lahey Clinic, Boston, addressed members of the Lay Society in the afternoon. Dr. Wilkerson's subject was "Your Relatives—Test Them," and Dr. Allen's, "Today's Diabetics and Tomorrow's Outlook."

At the evening lecture, attended by physicians, Dr. Wilkerson spoke on "Diabetes Control Objectives" and described a new 5-minute blood test, soon to be available to all doctors, which he predicted will prove more effective than urinalysis in screening diabetes victims. Dr. Allen's topic at the evening meeting was "Diabetes and the Role of the General Practitioner."

On December 9 and 10 free screening tests for diabetes, using the new blood test, were offered to Washington area residents in coöperation with the Public Health Service in the Medical Society's building. These tests, Dr. John A. Reed, President of the District Diabetes Association, pointed out, were offered primarily for the benefit of persons who believed they were free from the disease.

A panel discussion on diabetes was held at the Bethesda Naval Hospital, December 10. Participating were Captain I. L. Norman, Chief of Medical Service of the Naval Hospital; Dr. Samuel Benjamin, of Georgetown Hospital; Dr. Louis K. Alpert, who is on the staff of both George Washington and Georgetown University Schools of Medicine; and Dr. Thomas N. Carey, of the University of Maryland School of Medicine.

The Health and Hospital Section of United Community Services held a luncheon meeting, November 22, at the Sheraton Hotel. Dr. Winfred Overholser, Chairman of the Section, addressed the group, whose membership includes 125 representatives of public and private institutions. An executive com-

mittee of twelve members was elected at this meeting, and it was voted to admit a slate of 24 members-at-large representing the community. The Medical Society's Secretary, Mr. Theodore Wiprud, was selected as one of the members-at-large.

The newly elected members of the executive committee are: Miss Gertrude Bowling, Director of the Instructive Visiting Nurse Society; Miss Lois Burman, nutritionist for the District's Bureau of Maternal and Child Welfare; Dr. John W. Cronin, Chief of the Federal Employees' Health Division of USPHS; Ray H. Everett, Executive Secretary of the District Sociel Hygiene Society; Dr. Leigh C. Fairbank, former chief of the U. S. Army Dental Corps; Dr. Dorothy Ferebee, of Freedmen's Hospital and Howard University School of Medicine; Mrs. Grace Parr, medical social worker for the American National Red Cross; Leo Schmelzer, Superintendent of George Washington University Hospital; Mrs. William Carter Bowles, formerly active in the Montgomery County Public Health Lay Council; Rick J. LaFalce, public relations consultant; Dr. Garnet C. Wilkinson, Assistant Superintendent of District Public Schools for Divisions 10-13; Franklin H. Kenworthy, executive of the Chesapeake and Potomac Telephone Company and Chairman of the Public Health Committee of the Washington Board of Trade.

Among the 42 medical schools throughout the Nation that will share a \$1,498,333 Federal grant to develop psychiatric training for undergraduate medical students are **George Washington and Georgetown Universities**, each to receive a grant of \$37,500, and **Howard University** to receive \$29,697. Federal Security Administrator Ewing announced that these funds, authorized under the National Mental Health Act, will be made available for the school year 1949-50 and will be paid in annual allotments over a three-year period.

The District Rheumatism Society was granted a charter to establish a District of Columbia Chapter of the Arthritis and Rheumatism Foundation, with brief ceremonies at the Army and Navy Club, November 19.

The District Society will assist the national Foundation in its drive for \$2,000,000 funds for research, education and treatment of rheumatic diseases.

Plans for the campaign were drawn up in a meeting in the Medical Society's library, November 30.

The Academy of Medicine of Washington, D. C. held its fall meeting, December 16, at the Roger-Smith Hotel. The guest speaker was Dr. Ralph W. G. Wyckoff, Chief of Molecular Biophysics Section, Laboratory of Physical Biology of the National Institute of Health.

The Washington Ophthalmological Society held a dinner meeting, January 3, at the Kennedy-Warren. Following the dinner Dr. Frank B. Walsh of Baltimore spoke on "Abnormalities of the Optic Disc; Their Importance in Diagnosis."

The Washington Psychoanalytic Society met in the Medical Society's auditorium, December 11. Dr. Jule Eisenbud gave the principal address on "The Background and Future of the Telepathy Hypothesis."

The Class of November 1943 of the George Washington University School of Medicine held its Fifth Reunion Banquet at the Bethesda Country Club, December 4. Major Joseph A. Connor, M.C., U.S.A., and Dr. Gordon M. Smith were co-chairmen for the event. About twenty members of the class attended and it was voted to make it an annual affair.

Dr. Joseph A. Murphy, Director of the Health Department's Bureau of School Medical Inspection, retired at the end of November after serving the schoolchildren of the District of Columbia for 32 years.

Dr. Murphy, a graduate of George Washington University School of Medicine, practiced in the District from 1905 to 1908. He entered the Indian Service in 1908 as its first chief medical supervisor. For the next eight years he traveled to nearly every Indian reservation, coping with tuberculosis and trachoma, and establishing the first dental clinic for Indians. In 1916 he returned to the District as Director of the Bureau of School Medical Inspection for the Health Department and has served in that capacity continuously except for a short interval while he was in military service during World War I.

Dr. Murphy has been succeeded by **Dr. Richard L. DeSaussure**, who has been connected with the

Bureau of School Medical Inspection since 1927, and has been Assistant Chief of the Bureau since 1941. His own position will be filled by **Dr. Arthur E. Cliff**.

Dr. DeSaussure received his degree in medicine from George Washington University in 1913. From 1916 to 1920 he was an Assistant Surgeon in the U. S. Public Health Service.

The Health Department's Bureau of Cancer Control is making available for all District high school students cancer education courses under a new program sponsored by the District Division of the American Cancer Society. The first four-day course was held at Western High School. The programs consisted of motion pictures and lectures by 12 doctors serving in the District cancer detection centers. Participating in the program were Drs. James A. Gannon, Robert Hunter, Irene B. Barrett, Merton T. Waite, Roy G. Klepser, Daniel B. Greer, John Norcross, George Sharpe, Albert Bright, Thomas Bradley, Ernest A. Gould and Joseph A. Bailey.

The Board of Directors of the **District of Columbia Society for Crippled Children** elected as its President, November 29, Thomas J. Groom, who is President of the Bank of Commerce and Savings and Secretary of the Washington Board of Trade. Dr. Custis Lee Hall was elected First Vice President; Donald M. Bernard, advertising director of the *Washington Post*, Second Vice President; Thomas Grant, attorney, Secretary; and James H. Flanagan, Chairman of the District Public Utilities Commission, Treasurer. Paul B. Cromelin was appointed general counsel and Mrs. Jewell C. Gaffney was reappointed Executive Secretary.

Among those selected to head standing committees for the coming year were: Dr. Hall, medical, and Dr. William P. Argy, family relations. Drs. Argy, Paul J. O'Donnell, and Edward C. Wilson, Jr., will serve on Dr. Hall's committee and Dr. Michael J. McInerney is included in Dr. Argy's committee.

Dr. O'Donnell will also serve as chairman of an advisory board to the Society. Other members of the District Medical Society who will serve on this board are Drs. Frank M. Hand, Julius S. Neviasser and William F. O'Donnell.

A medical advisory committee for the Curative Workshop was also appointed. This committee is

composed of the following physicians: Dr. Wilson, *Chairman*; Drs. Paul Chodoff, Everett J. Gordon, George Maksim, Robert Lee Simpson, William T. Spence, Charles W. Thompson and Robert F. Dow.

The Clinico-Pathological Society held its regular meeting, December 21, at the home of Dr. J. Ross Veal. For the scientific program Dr. Brian Blades furnished a paper on "Differential Diagnosis of Surgical Lesions of the Thorax."

The District Training School at Laurel, Md., of which Dr. James Lewald is Superintendent, has erected a new \$120,000 hospital addition, raising the bed capacity of the hospital from 60 to 100. Dedicatory ceremonies were held on December 15.

Dr. Winfred Overholser has been presented the War and Navy Department Certificate of Appreciation "for an outstanding contribution to the work of the Office of Scientific Research and Development during World War II." General Gay, the commanding General of the Military District of Washington, made the presentation, November 24, in ceremonies at the Pentagon.

Dr. Norman H. Topping, Associate Director of the National Institutes of Health, has been promoted to the rank of Assistant Surgeon General of the Public Health Service. Dr. Topping received his medical degree from the University of Southern California. In 1936 he was commissioned in the Public Health Service, where he has conducted research in dysentery, typhus fever, and Rocky Mountain spotted fever. He recently organized a program to investigate the cause, cure and prevention of the common cold.

Brigadier General Paul H. Streit took command of the Army Medical Center, January 15, succeeding Major General George C. Beach, who died November 18. General Streit is a graduate of the University of Texas Medical School, 1916, and has been a member of the Regular Army Medical Corps since 1917.

Dr. Murray M. Copeland, of Georgetown University Medical Center, addressed the Annual Meeting of the Southern Surgical Association on the subject of "Chondroblastomas, Benign and Malignant." The

meeting was held at White Sulphur Springs, West Virginia, December 7 to 9.

At a meeting of the Section on Orthopedic Surgery of the New York Academy of Medicine in New York, December 17, Dr. Copeland presented a paper on "Radioactive Isotopes—General Consideration."

He attended a meeting of the James Ewing Society, January 14 and 15, in New York City. This Society was founded in honor of the late Dr. James Ewing, who was well known for his interest in the field of cancer. Later in the month Dr. Copeland will be present at a joint meeting of the American Academy of Orthopedic Surgeons and the American Board of Orthopedic Surgery, in Chicago. During this meeting he will participate in the Board examinations as guest examiner.

Dr. John G. Ball of Bethesda will be one of the judges in a high school press contest sponsored by the Montgomery County Board of Education. The contest, which closed December 25, is part of a national junior and senior high school press project sponsored jointly by the Columbia Scholastic Press Association and the National Tuberculosis Association. Prizes of \$25 will be awarded to each of the two high school newspapers submitting the best articles on tuberculosis.

Dr. Theresa T. Woo has returned to Washington after spending several months in Boston, where she took a postgraduate course in pediatrics at the Harvard Medical School and Boston Children's Hospital.

Dr. James N. Greear, Jr., was reelected for a second three-year term as a member of the Board of Trustees of the District Society for the Prevention of Blindness at the organization's recent annual meeting.

Dr. John A. Talbot was reelected to the Board of Directors of Children's Hospital for a five-year period, December 6.

Dr. Joseph V. Casella has moved to Wilmington, Delaware, where he will practice pathology in the Wilmington General Hospital. The Executive Board granted his request to continue his affiliation with the District Medical Society as an Associate member.

CORRESPONDENCE

WASHINGTON, D. C., December 3, 1948

TO THE EDITOR

MEDICAL ANNALS OF D. C.

1718 M STREET, N.W.

WASHINGTON 6, D. C.

A major nuisance has developed because of the "requests," often the rather peremptory demands, of agents of life insurance companies for medical information concerning individuals, who, when applying for life insurance, have given the names of their personal physicians. As every physician knows too well, there is enclosed a long blank, which is to be filled (it is hoped) with detailed information from his file. In the past it has not been unusual for an agent, or even the physician for a company, to ask for such information by phone, even though yielding such facts may be risky or actually illegal, because, first, the physician does not have a written release, and second, the transmission of such information by phone may involve legal complications.

Some years ago a physician for a company phoned the writer seeking information about an applicant, the request being at first rather ingratiating, then insistent, and finally, quite demanding. The reply was, first, that there was no written release from the applicant, and second, that such information was never revealed by telephone.

A recent wrinkle has been the offer of one or two dollars as a presumably suitable reward for the completion of a blank, both the offer and the amount being really insulting in consideration of the importance to the company of the information involved. For example, a certain person had been tentatively accepted for insurance after examination. However, the application was rejected after receipt by the company of a blank filled by the writer because certain facts were disclosed, which the company examiner had been either too hasty or too incompetent to discover. The applicant then became very incensed at the writer, who merely provided authorized information which led to the rejection.

A blank received recently contains this statement: "In exchange for the \$1.00 bill attached, which is to cover your clerical cost and IS NOT TO BE CONSIDERED AS A MEDICAL FEE (capitals supplied), will you please fill out this form PROMPTLY and return in the enclosed self-addressed, stamped envelope?" Typed at the top was this added statement: "\$1.00, copy of signed permission statement, and return envelope sent with original. May we please have report at your earliest convenience if not en route?"

From another agent the letter reads: "A former patient, M. —, would appreciate your cooperation in an

insurance matter in which he is interested. The information is in connection with a previous trouble, and we enclose authorization properly signed. We also enclose a stamped envelope for your convenience in replying, and if you will kindly answer the questions on the bottom of this letter, we will appreciate it greatly."

Upon inquiry by phone, it was ascertained, as expected, that the applicant was applying for insurance, that there had been no medical examination, and that the company expected from the writer detailed information and his professional opinion about past illnesses and examinations. Thereupon the agent was written to the effect that the file contained results "of extensive studies, physical examination, fluoroscopy, electrocardiograms, urinalysis, blood counts, chemistry and serologic results." The letter closed with this question: "Is there any reason why I should furnish you information and my professional opinion without charge?"

A portion of the letter in reply is worth quoting: "In this case, however, the information is not for the benefit of the insurance company, but a request from your former patient to give certain information that will clarify an insurance situation in which he is interested. I take it from your letter that you refuse to give this information except for a very substantial fee, and since Mr. —'s interests are involved rather than our own, we do not feel warranted in paying the fee suggested. A copy of this letter is being sent to Mr. — and it may be that he will be able to get the information in some other way so that we can pass on the question of insurability."

Since an application for insurance is a business matter between applicant and company, one questions the above statement of the agent that "the information is not for the benefit of the insurance company." If not for the benefit of the company, for whose benefit is it? Even more objectionable is the obvious attempt, by sending the applicant a copy of that letter, to prejudice him against his physician.

Other physicians will agree with the writer who in the future will consign such requests and blanks from insurance agents to the proper receptacle—THE NEAREST WASTEBASKET.

Very truly yours,
CHARLES R. L. HALLEY, M.D.

BOOKS RECEIVED FOR REVIEW

Acknowledgment is made of the following books which have been received for review:

Dementia Praecox; the Past Decade's Work and Present Status: A Review and Evaluation.

LEOPOLD BELLAK, M.D., Associate in Psychiatry, New York Medical College; Assistant Psychiatrist, Flower and Fifth Avenue Hospitals, New York City, with a Foreword by WINFRED OVERHOLSER, M.D., Superintendent, Saint Elizabeths Hospital; Professor of Psychiatry, George Washington University Medical School, Washington, D. C. Price, \$10.00. Pp. 456. New York: Grune & Stratton, 1948.

Nursing for the Future: A Report Prepared for the National Nursing Council. ESTHER LUCILE BROWN, Ph.D., Director, Department of Studies in the Professions, Russell Sage Foundation. Price, \$2.00. Pp. 198. New York: Russell Sage Foundation, 1948.

Premature Infants—A Manual for Physicians. ETHEL C. DUNHAM, M.D. Children's Bureau Publication No. 325. Price, \$1.25. Pp. 401. Washington, D. C.: Government Printing Office, 1948.

Control of Pain in Childbirth: Anesthesia-Analgnesia-Amnesia, 3rd ed. CLIFFORD B. LULL, M.D., F.A.C.S., F.I.C.S., Director, Division of Obstetrics and Gynecology, Philadelphia Lying-in Unit, Pennsylvania Hospital, AND ROBERT A. HINGSON, M.D., F.I.C.S., F.A.C.A., F.I.C.A., Associate Professor of Obstetrics; Anesthesiologist, Department of Obstetrics, Johns Hopkins University and Hospital; Surgeon, United States Public Health Service; with an Introduction by NORRIS W. VAUX, M.D., Consulting Obstetrician and Gynecologist, Philadelphia Lying-in Unit of Pennsylvania Hospital; Professor Emeritus of Obstetrics, Jefferson Medical College. Price, \$12.00. Pp. 522, with 171 figures, 29 tables and 10 color plates. Philadelphia: Lippincott, 1948.

BOOK REVIEW

Practice of Allergy, 2nd ed. WARREN T. VAUGHAN, M.D., Richmond, Virginia; revised by J. HARVEY BLACK, M.D., Dallas, Texas. Price, \$15.00. Pp. 1132, with 333 illustrations. St. Louis: Mosby, 1948.

This is the second edition of the "Practice of Allergy." The first was published in 1939. Dr. Warren T. Vaughan was collecting the material for this edition at the time of his death. The work was completed by Dr. Harvey Black.

This edition follows the outline of the first text and does retain the original flavor. It presents new material on present-day acceptable views and gives Dr. Vaughan's opinions on controversial subjects.

It unfortunately contains many of the statements of the original text as "a recent report by Levin and Taub" (1936) and "having been brought up to date by Sulzberger" (1939), and devotes less than one page to the so-called antihistaminic drugs.

The chapter on Field Survey and Aerobiology are written by Mr. O. C. Durham, Chief Botanist of the Abbott Laboratories, Chicago, and Technical Director of the Committee on National Pollen Survey, and therefore are authoritative. The chapter on fungus infection is written by Dr. J. B. Howell, Dallas, and represents the present thinking on this subject. Dr. James Holman has rewritten the chapter on Vital Capacity, which is an excellent résumé of this topic. The chapter and illustrations on the identification of fungi, as in the original edition, is by Dr. Frederick W. Shaw, Richmond.

Most of the photographs are excellent. The detailed charts and tables are instructive. The book is well printed and easily read.

This work may prove helpful as an introduction of the subject to those interested in allergy.

ELLIS APRIL, M.D.

Infant Feeding—Burdick

(Continued from page 12)

8. Allow him only the amount of milk he wants, not the amount you think he ought to have.

9. Schedules and routines can be overdone to the detriment of both the mother and the baby.

10. Happiness and freedom from fear are as contagious as measles and much more comfortable.

"Better a dinner of herbs, where love is, than a stalled ox and hatred therewith" is an old proverb illustrative of this last point. A stalled ox means a steer which has been fattened in his stall so that his meat is juicy, fat and tender. The proverb says that this superb meat can't be enjoyed in an atmosphere of hatred as much as simple greens can be enjoyed when an environment of love and happiness prevail at mealtime.

The author is indebted to Mrs. Edward J. Stieglitz for the excellent drawings and cartoons which amplify some of the high points made in the paper.

Joseph Goldberger—Podolsky

(Continued from page 20)

ease which was beginning to loom large in modern life. It was pushing ahead to the fore as a captain of death. It was a disease which was beginning to claim more and more lives as the years went by. This disease was cancer.

It had already sown its malignant seeds in his kidneys even while he was conducting his great researches. There were sharp, knifelike pains which made him hold his breath at times. His surgeon friends knew what it was; he himself had an idea. But he was helpless, utterly helpless. Cancer was not pellagra, and he knew in his heart that he could do nothing to save himself; nor could the most skillful of his colleagues.

Here he was in the prime of life, the middle fifties, and he knew that the willful growth would spread and finally kill him. In his fifty-fifth year Joseph Goldberger died from a carcinoma of the kidney, a cancer that had peppered his insides with life-sapping growths.

The name of Joseph Goldberger is one of the greatest in modern medicine. It will be associated for all time with the conquest of pellagra, the mysterious hunger that etched a red curse on the hands and faces of men and robbed them of their reason. In 1929 the House of Representatives of the United States voted a pension to his widow "in recognition of the services of Dr. Goldberger in discovering the essential cause of pellagra and means of its cure and prevention."

Report of Delegates to AMA

(Continued from page 38)

Television on a 7 by 9 foot screen with several smaller screens in simultaneous operation demonstrated that a new medium of instruction is available whereby some 500 may see the intimate details of an operation or a clinical presentation to very much better advantage than was ever allowed to the privileged few who could crowd into an amphitheatre.

Drs. Christie, Coe, Hampton and Wyatt of Washington D. C. participated with a Scientific Exhibit entitled "Rectal Bleeding—Polyps and Early Carcinoma of Colon." Dr. Jacob J. Weinstein, of George Washington University and Galinger Hospitals, presented an exhibit on "Parenteral Proteins in Surgery."

Next Meeting: The next Annual Session of the AMA will convene in Atlantic City, June 6-10, 1948.

Respectfully submitted,
COURSEN B. CONKLIN, M.D.
HERBERT P. RAMSEY, M.D.
Delegates

Washington Physicians of Yesterday—Johnson

(Continued from page 46)

ority of birth. The hospitals with which he was connected as gynecologist were Freedmen's, Georgetown University, Columbia, Providence, Emergency; he also conducted his own private hospital, which he built in 1887 at 1728 K Street. In all, he performed some 3,000 abdominal operations.

He began his professional career as an Acting Assistant Surgeon of the United States Army, assigned to duty at Freedmen's Hospital, 1868-73. At this time he also began a distinguished teaching career, as professor of obstetrics and diseases of women, etc., in Howard University Medical School, 1867-73. After this for 29 years he was a prominent member of the faculty of Georgetown University Medical School, as Lecturer in 1874 and Professor in 1876 of Obstetrics, later (from 1887) as Professor of Gynecology and Abdominal Surgery; he resigned this position in 1913, and assumed Emeritus status.

Dr. Johnson was an active member and officer of many important societies, among which were: The Medical Society of the District of Columbia, joining in 1867 and 1873, its President 1887, member of its Board of Examiners for several years; a founder of the American Gynecological Society in 1876, its Secretary and Editor 1886-90, President 1899; a founder of the Washington Obstetrical and Gynecological Society, its President 1888-89; Southern Surgical and Gynecological Association, President 1898-99; British Gynecological Society, Fellow 1886; Washington Philosophical and Anthropological Societies; Cosmos Club from 1882. He was memorialized in "Who's Who in America."

He was a prolific contributor to medical periodicals and literature, with over 80 titles, including a section on Diseases of the Ovaries and Tubes in Dennis' "System of Surgery."

By his first wife, Edith Maud Bascom, whom he married in 1873, he left a son, Dr. Loren B. T. Johnson (1875-1941), who was prominent in medical affairs in Washington. In 1911 he married a second wife, Mary Elizabeth McCann.

Dr. Johnson retired from practice in 1913, and in his declining years was a happy devotee of golf, having from its organization been a member and President of the Washington Golf and Country Club, convenient to his residence at Cherrydale, Virginia. He died March 12, 1921.

A testimonial dinner was given Dr. Johnson by the Medical Society on October 28, 1915, with the presentation of a loving cup, to celebrate his seventieth birthday and fiftieth graduation anniversary. On this occasion appreciative tributes were paid to his personality and his career and achievements, and warm sentiments were expressed of the esteem and friendship in which he was held by his associates.

JOHN B. NICHOLS, M.D.

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WHAT IS GOOD MEDICAL SERVICE?*

IAGO GALDSTON, M.D.

Executive Secretary, The Committee on Medical Information of The New York Academy of Medicine, New York City

 TAKE the title "What Is Good Medical Service?" to be an assignment to explore the over-all, that is, the ultimate performance of medicine in society. Palpably, in asking the question, what is good medical service, we confess that we do not as yet know the answer, and we likewise admit that we do not as yet have good medical service.

It is both pertinent and significant that the query is being raised at the very time when medicine is in a fever of exploration and achievement, greater than that ever before witnessed in all its long history. This very paradox I take to be a strong warrant for the inquiry into the ultimate performance of medicine in society, since in the paradox there is more than a suggestion that medicine labors like Hercules and attains like Sisyphus.

I must admit that not many are likely so to interpret this paradox. The majority rather think it points to simpler conclusions. The current concern with good medical service, they hold, stems from the public's desire for more of a good thing. In that belief they hold medical

service to be good when it is available to everyone everywhere. It can be made available, they argue, by spreading its costs, in taxes or insurance. You will here recognize the argument of the proponents of socialized medicine. To them the answer to the question thus appears to be quite simple, "Medical service is good when it is available."

Admittedly some are not quite content to rest the matter upon availability alone. These then emphasize quality as well as quantity. But in that emphasis they underscore such items as group practice, diagnostic and consultation facilities, better records, more thorough examinations; that is, they insist that those things which are now done should be better done.

These arguments are so simple, so seemingly logical, and so strongly persuasive that to oppose them on other than economic and political grounds calls for a good deal of courage. And be it noted, the opponents of socialized medicine almost entirely and invariably argue against it in terms of great costs, much red tape, and insufferable bureaucracy. Now the reason why it takes courage to argue against socialized medicine on grounds other than its economic costliness and

* Delivered at the Nineteenth Annual Scientific Assembly of the Society, September 29, 1948.

political embarrassment is that one thereby becomes involved in the question whether modern medicine is quite as good as it is claimed to be. And such a question is not only heretical but quite shocking! For everywhere modern medicine is acclaimed and celebrated for its "miracles," for its unbelievable achievements in the conquest of disease, for its great refinements in diagnosis, and for its sure effectiveness in treatment. Therefore, to question whether modern medicine is quite as good as it is claimed to be appears not only to be flying in the face of experience, but even to be a bit precious and effete. Despite these risks, we cannot, however, evade inquiring into the effectiveness of modern medicine, for it is deeply involved in the question, what is good medical service?

Medicine, as I have suggested before, can be evaluated as to its immediate, and also as to its ultimate effectiveness. In relation to good medical service, I have taken it as our aim to "explore the over-all—that is, the ultimate performance of medicine in society." Here then we come upon the crux of the matter. The immediate effectiveness of modern medicine falls within the experience of every man, and every man can attest to its high effectiveness. But its over-all effectiveness, medicine's ultimate performance in society, is a something which few conceive of, and fewer still study. That is a matter far outside the realm of ordinary experience; the ultimate effectiveness of medicine is the province of the epidemiologist, the demographer, the social engineer.

Such being the case, the question may be asked, "Why not leave it to them; why bother with such problems? They are awfully involved, very tricky, hard to understand, and hard to handle." And the answer to that is, we may choose to leave them alone, but they won't choose to leave us alone. To state it bluntly, we cannot glory in our immediate achievements but must look to the ultimate issue, for we are involved and menaced, both as individual members of society and as members of the healing fraternity. The

facts are that the epidemiologists, the demographers, and the social engineers point to certain very disquieting facts relating to the over-all performance of medicine in society. They point to the mounting load of chronic and degenerative diseases, to the shift from the acute infections to the long-enduring organic and functional disorders. They point to the increasing costliness of medical service, and to the mounting cost of the support, hospitalization, and treatment of those who will not die yet cannot live substantial lives. The more enlightened and better informed among them present convincing evidence to show that the extension of the prevailing medical services will not appreciably relieve us of these burdens but rather will serve to increase the portion of the national income to be spent in medical service.

The burden of these arguments can be summed up in the succinct statement that curative medicine can never hope to catch up with, nor to overcome the need for curative medicine. On the contrary, curative medicine has initiated and now perpetuates a vicious cycle in which the more curative medicine is rendered, the more is ultimately required. The fault, if I may phrase it curtly, lies in that curative medicine endeavors to remedy the ill, and is but seldom and little concerned with the health of the individual.

I should like here to divert for a minute to make certain that my remarks are not construed as a criticism of the modern physician. In criticizing curative medicine, I want most emphatically to call attention to its limitations and deficiencies, but in doing so I want only to indict the trend which needs correction, and not the men who are themselves swayed by that trend. Curative medicine is the triumphant issue of an historic movement which began with Vesalius and Harvey, and which came to a glorious fruition in the works of Pasteur, Koch, Lister, Ehrlich, and Fleming.

But we have now, at least in potential competence, gone beyond that, and instead of looking upon the cure of the illness as an end in itself, we

now should and can regard the cure of the illness as but the initial step in a process aiming to help the patient to gain back as much of health as his genetic endowments, his intelligence, his age, his previous injuries, and his social and economic circumstances make possible. Even more than this is now possible, but I must not run ahead of the argument. This can be resumed with the summary statement that curative medicine neither is nor can be good medical service, and that good medical service is not to be achieved by the extension of the prevailing type of medical service. How then? To answer categorically—by comprehensive medicine.

This term will need more than a word of explanation. I have adopted it but recently. Formerly I answered with the term "eubiotic medicine." But very few took to the term, and more seemed to prefer comprehensive medicine. Those that use it, and it is being used fairly widely, do not always cover the same ideas that I do with it. But then, terms can be endowed with meanings not originally associated with them, and the term "comprehensive" I find rather felicitous. But first let us dispose of one common idea associated with comprehensive medicine. This is the idea of completeness in types of service, that is, remedial, preventive, diagnostic, consultative, laboratory, specialist, home, hospital, obstetric, medical, surgical, dental, orthopedic—in a word, all the segments of an inclusive service. On this score it can be said that any numerically substantial group, in order that it might receive in full the medical care which it is bound in time to require, obviously does need access to each and every one of these segments. However, since there is a good deal of misconception on this matter, it needs to be affirmed most emphatically that the summation of all categories of medical service does not necessarily add up to good medical service or, as I prefer to call it, comprehensive medical service. The reason for this is obvious. Comprehensive medical service designates not merely a quantity but rather a quality of service; it is far more the

achievement of an idea, or of an ideal, than it is the performance of a thorough or all-inclusive service. The latter may be routine, mechanical, and perfunctory. The term comprehensive is thus very fortunate, for though it includes among its meanings "having a wide grasp" and "the inclusion of many distinct items or factors," its major meaning is that of understanding. Comprehension is "the act, process, or result of grasping ideas, facts, etc., with the mind or the power of doing so."—Funk and Wagnall. In this light, I am sure you can appreciate that a single office visit can constitute a comprehensive medical service, while months of sojourn in an institution, together with scores of tests, examinations, consultations, etc., may yet fall short of affording a patient comprehensive service.

Having insisted that comprehensive medical service is "the achievement of an idea or of an ideal," it is quite proper to ask what is the nature of this idea, the quality of the ideal. If comprehension is a matter of understanding, what is it that is to be understood? The question is fair but somewhat difficult to answer; not because the answer is wanting either in substance or clarity, but rather because it must perforce be framed in terms that are strange and to some degree irritating and provoking, since they run counter to many prevailing ideas, beliefs, convictions, and thinking processes. Also, and because of this, the answer must first be given in negative terms.

Thus, comprehensive medicine is not content to cure disease; it postulates that a man may be cured of his disease and remain in bad health. Comprehensive medicine rejects as barbaric the concept of specific etiology, and attempts to envisage the multiple factors antecedent to and operative in pathologic and other processes. The more advanced students in comprehensive medicine employ with extreme caution and only for convenience the term and concept of causation. Comprehensive medicine does not allow a clear demarcation between sickness and health, but rather envisages these as degrees of functional effectiveness or efficiency. Comprehensive

medicine does not "extract the patient from his realm" nor does it study or treat him as if he were "a thing apart"; on the contrary, it well appreciates that he is the embodiment of a dynamism inextricably set in the matrix of his cultural and material milieu. Comprehensive medicine does not grant the existence of specific therapies, though it recognizes the existence of varying orders of therapeutic agents, some of which seemingly have direct effects, and others more mediate ones. Comprehensive medicine appreciates that the 'dynamism man' is affected by dynamic agents of every order, and hence it has no difficulties in comprehending the effects both good and bad which emotions and other dynamisms of a psychologic order can and do have upon man. Comprehensive medicine is immune to the unfortunate dichotomy of "body and mind," and also to its only slightly less unfortunate substitute, "psychosomatic" medicine. The idea that psychic traumata cause somatic pathology is alien and paradoxical to the thinking of comprehensive medicine, in which both order of phenomena, and others beside, such as social and economic, are regarded as distinctively different but related manifestations of the dysfunction of the organism.

Comprehensive medicine is to be distinguished from the prevailing clinical medicine in that whereas the latter is episodic (emergency medicine or fractional), comprehensive medicine is dynamic, progressive and anticipatory. Comprehensive medicine envisages living as a sustained adventure, and medicine as a profession and practice ancillary to that adventure.

In this broad perspective, comprehensive medicine is seen to be exempt from many of the fictions which today beset prevailing clinical medicine, fictions which include "norms" and "criteria" and which project an ideal but in fact impossible world, free of pain, of disorders and of degenerations. These fictions are harmful, because experience teaches those who are willing to learn that pain is a large part of the adventure of living, and that one can purchase

exemption from pain only by giving up so much of the adventure. Disorder and degeneration are likewise part of the adventure of living and part of the price paid for that adventure. The real evaluation of pain, disorder and degeneration is not in whether they exist or not, but rather in their degree and warrant. Pregnancy is a disorder; presbyopia, a degeneration, but in given circumstances both are "normal"; in others, otherwise.

Comprehensive medicine understands that man shares this world with bacteria, and viruses, and with other animals and other human beings. He lives by them and he must learn somehow to live with them. It took medicine many years to recognize that in a figurative sense "a sterile environment yields a sterile life" and it was a somewhat shocking discovery (in more than one sense) that the colon bacillus could really be of use by being concerned in the production of a vitamin.

Comprehensive medicine is utilitarian and practical. Its uppermost concern is "what can best be done with what we have." In this pragmatism comprehensive medicine would freely use all modalities, including social service, rehabilitation, reëducation, convalescent care, etc., etc., seeking only like a good Vermonter or a good Breton peasant to make the best use of what's to hand.

Comprehensive medicine would be anticipatory. It would not only deal with the current problems of the patient, but would also look forward to his "adventure in life." This anticipation would not be confined to forewarnings of the "inevitable and the dire" but would embrace also the good. Comprehensive medicine would recognize that but few young persons are prepared for adulthood; few men and women for love and sexuality; few married pairs for parenthood; and few parents for the experience of growing old with their children. Very few indeed can follow the Ben Ezra injunction—

"Grow old along with me!

The best is yet to be,

The last of life for which the first was made,"

or believe that it is anything but mere poetry. Naturally, comprehensive medicine cannot solely achieve, but it can substantially contribute to the instruction of the people in the hazards as well as in the wholesome and enjoyable "adventures in living."

You who are experienced physicians will not require particular elaborations on the score of the anticipatory phase of comprehensive medicine. You can draw from your own experience to bring to mind the young woman, and man too, bewildered by sexuality; of the young married woman wasting the bloom years of her youth in fear of the pains of childbirth; of the young father who is dismayed to find his wife has given him up in favor of a younger man, her baby son; and the man, or woman, of 50 who dreads a gray hair and growing old, the one overplaying tennis or sex, the other overdoing everything.

It should now be clear to you what was intended in the statement, "comprehensive medicine is the embodiment of an idea and the achievement of an ideal."

One final point remains to be added—comprehensive medicine is not a specialty. Its practice need not wait on the addition of new science. Nothing needs to be added but vision, an understanding that penetrates to the heart. When that vision becomes animate and widespread then we shall indeed have good medical service. And when is that likely to be? Truth to say, I do not know. But I do know that all the antecedents are against it; the intellectual atmosphere, the scientific framework, the faith of both the scientist and of the public all are against it.

Try if you will to persuade the average medical man that "specifics" are a fiction. He'll not understand, and think you silly into the bargain. Try to persuade the public that personal preventive medicine is as desirable at least as curative medicine, and you'll soon be reminded of the ditty,

"The devil sick

The devil a saint would be."

The reasons run deep. We are, all of us,

children of the Baconian-Cartesian world, indoctrinated with the postulates of Descartes' *Methodes*. Our thinking is ordered to its dicta, our textbooks, our laboratories, our schools, our technics, are all modeled on its master scheme. Even the history of our science is corrupted (unwittingly be it affirmed) to follow the Cartesian scheme, which was aptly summed up by Herbert Spencer as "a progression from the simple to the complex; from the homogenous to the heterogenous."

Because of this it is for most men an unthinkable task to question the Cartesian method. They are like those who, seeing the sun move in its arc, were yet asked to believe Galileo. They could not because all the evidence and all good sense was on their side. Is it not so with the present-day scientist, especially with the medical man? All the evidence and all the good sense are on their side, the side of Descartes. Behold the golden age of medicine—Pasteur, Lister, Koch, et al; behold the vaccines, serums, antitoxins, chemicals, antibiotics! Behold the unfoldment of surgery, endocrinology, psychiatry, geriatrics! Behold the conquest of the plagues, cholera, bubonic plague, typhoid, diphtheria, typhus!

Was there ever so glorious a period, so many achievements, in the whole history of medicine? And do we not owe it largely—nay mostly—to the *Novum Instaurum* and to the *Methodes* of Descartes? How now shall we discard it all?

For this proud and universal acclaim of modern science and its glorious achievement there is deep warrant. However, a small voice may yet sound off to call attention to certain disturbing facts, facts such as these: that though people do not die of the plague diseases, many only live to suffer from other diseases; that chronic disease and disability, though less dramatic than the Black Death, are more burdensome, and are increasing with the reduced fertility and prolongation of life which accompany modern civilization; that far too many break down emotionally and mentally under the stress

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PROGRESS IN VIRUS CONTROLS*

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FILTRABLE disease-producing agents were first demonstrated to exist by Iwanowski in 1892 in tobacco mosaic disease. It was, however, 6 years later in 1898 that Beijerinck, working with the same virus, proclaimed it to be a "contagious living fluid," thus indicating the recognition of a new class of disease-producing agents. The same year Loeffler and Frosch identified the first filtrable virus in a disease of animals—hoof and mouth disease.

From these modest beginnings, approximately 350 viruses are now recognized which affect various animals, insects, plants and bacteria. Viruses effective against protozoa have not as yet been found.

Although their relatively small size, their ability to multiply within living cells of the susceptible host, and their inability to do so in culture media devoid of cells are characteristic common properties of viruses, members of the group are known to vary greatly from one another in many other particulars.

True, practical control methods for virus diseases were begun long before the existence of this group of pathogenic agents was recognized. For instance, smallpox control was attempted by variolization and vaccination, and rabies control, by control of the chief host of the virus, the dog, before the existence of viruses was known. Likewise, yellow fever control through control of its principal vector, the *Aedes aegypti* mosquito, was initiated before the causative agent was discovered.

Yet the primary isolation of a virus should be generally considered as a tremendously important primary step in the development of its control, since by such a discovery there is created

the possibility that a specific diagnostic test may be developed, such as the complement fixation tests for various diseases, the serum-virus-neutralization tests for certain encephalitides and meningitides, and the red-cell agglutination inhibition test for influenza. Further, the discovery of a specific disease-producing virus holds out the hope that mutant strains capable of use as a living vaccine may be found, or that it may be possible to develop a method for cultivation whereby multiplication sufficient to produce an inactivated vaccine can be attained.

Therefore, the recent isolation in various parts of the world of previously unrecognized viruses, such as the viruses of Bwamba fever, West Nile, Semlike Forest, Bunyamwera fever, Mingo encephalomyelitis, encephalomyocarditis, "common cold" viruses, etc., are noteworthy accomplishments pointing toward a possible ultimate control.

I shall, however, endeavor to treat the subject assigned to me in a somewhat more specific fashion with emphasis upon some of the more recent advances which have led to improved methods of control or to a more rational concept of observed epidemiologic and experimental results.

Long considered to be living organisms, the very small viruses, some even smaller than some protein molecules, posed a puzzling problem as to how such minute particles could contain within themselves the powers of multiplication and metabolism of a living cell. This puzzle was in the case of one virus, tobacco mosaic, answered by Stanley, who isolated from diseased tobacco plants a crystalline nucleoprotein which displayed remarkable characteristics. For instance, he found that:

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1. Repeated recrystallization of the nucleoprotein failed to affect the virus activity.

2. The stability of the protein was the same as the virus activity.

3. Attempts to separate a virus from the protein by filtration, electrophoresis, varying hydrogen ion concentrations, etc., all failed.

These facts are hard to explain by any assumption other than that the crystalline nucleoprotein, in this case, is itself the virus, not living, but capable under favorable circumstances, found in tobacco leaves, of self-generation.

It is not likely that all viruses are of this character; in fact, some are known to contain, not only nucleoproteins, but lipoids and carbohydrates as well and a morphologic structure more suggestive of an organism than of a crystallizable molecule. Furthermore, no animal virus has as yet been produced in a crystalline form. Nevertheless, the concept that some viruses are crystallizable proteins has proved of value and has led to successful attempts to concentrate virus by means of precipitation with ethanol, methanol, ammonium sulfate, etc., agents long known to precipitate protein, apparently with slight if any modification. These methods have met with success and are of proven value in the concentration of certain viruses and in attempts at virus isolation.

The electron microscope, too, has made it possible to see the infectious particles of even the smallest viruses and has thrown a flood of direct light upon their form, size, and arrangement. It has illuminated the nature of bacteriophage and ultimately will probably illuminate the mystery of how viruses multiply and what happens in the virus-antibody combination whereby virus neutralization is brought about. In time this microscope will probably afford an additional tool for the identification and differentiation of certain viruses.

Attempts to control air-borne virus infections have been made by means of ultraviolet light and glycol sprays applied in school rooms, barracks, and the like. The expense of installation and of operation are obvious drawbacks, and at best it

appears that a postponement of some disease for a variable period is all that could be expected from such procedures. Nevertheless, some use is being found for these agents in the special cubicles and hoods designed to protect laboratory workers from infection. Ultraviolet radiation is an effective means of inactivating virus without altering the antigenicity. Chemistry has contributed useful tools for control of certain virus diseases transmitted by insects in the remarkable contact insecticides, such as DDT, which is so effective against mosquitoes, and it is possible that such tick repellents as butylacetanilide may afford some protection against infection by tick-borne viruses, for example, the spring-summer encephalitis of Russia.

In addition to these general considerations, it is desirable in discussing progress in virus studies to review some of the more important advances in the realm of specific virus infections.

Poliomyelitis.—It has long been known that at birth the demonstrable serum immunity of the infant to poliomyelitis is identical with that of the mother. This inherited immunity, however, soon wanes, but after some months the incidence of serum immunity begins to rise and continues to do so until in adulthood 75 per cent or more of individuals are found to possess serum antibodies against poliomyelitis virus.

John Bell extended this work and found that among those adults who have antibodies in their blood nearly 60 per cent have antibodies in their nasopharyngeal secretions also, though at a definitely lower level. Antibodies in these secretions would be expected to tend to neutralize any homologous poliomyelitis virus present in the nasopharynx just as would occur with a similar mixture in a test tube.

Thus a rational possible explanation is afforded for the observations in both man and other primates that virus in the nose and throat is most readily found during the 3 or 4 days just before the onset and the 3 or 4 days just following the onset of symptoms. In other words, an explanation is afforded for the fact that virus tends to

disappear from the nasopharynx in a matter of days while it tends to persist in the intestines for weeks, since antibodies have not been demonstrated in the intestinal tract although attempts to do so have been made.

It is interesting to note that epidemiologic evidence points also to the finding that the few days immediately before and after the onset of symptoms are the most infectious period of the disease.

Although this action of antibodies which come in direct contact with virus appears clear, the significance of antibodies circulating in the blood where poliomyelitis virus usually is absent has been a puzzle for years. For instance, primates which have recovered from a paralyzing attack of poliomyelitis are usually found to resist reinfection by the homologous strain of virus. However, monkeys actively immunized by vaccination but which do not develop the disease usually develop demonstrable neutralizing antibodies but tend often not to resist infection, whereas animals rendered passively "immune" by large quantities of hyperimmune serum have been quite regularly found susceptible to intracerebral inoculation of the virus. These observations are rendered understandable by the recent work of Morgan, who demonstrated that in recovered paralyzed animals or in very highly immunized animals there is a local appearance of virus-neutralizing substance within the central nervous system, confined to those centers susceptible to the virus, such as the anterior horn cell area of the cord and the basal ganglia of the brain, whereas nonsusceptible areas like the white matter or visual cortex remain free from antibodies. The significance of antibodies at the precise point where virus must strike is apparent. The demonstration that antibodies in the central nervous system appear only after vigorous active immunization or after an actual attack of the disease and not after less vigorous active immunization or passive transfer offers a very probable explanation for the puzzling conflicting results secured by virus inoculation of animals harboring serum antibodies.

Strain differences.—The absence of knowledge,

prior to 1931, that different antigenic strains of poliomyelitis virus existed and the incomplete information that has maintained to the present time concerning the number and the relationship of such strains have not only introduced uncertainties into poliomyelitis research but have also befogged certain considerations, for example, whether active vaccination would be a practicable measure against poliomyelitis even though an effective, immunizing material for homologous virus strains should be found. The National Foundation for Infantile Paralysis has now undertaken the classification of poliomyelitis strains. One strain, of which the Lansing virus is the prototype, has been established, and other strains which differ from the Lansing strain will be designated as rapidly as suitable prototypes can be sufficiently studied for adoption.

A temporary predisposition to poliomyelitis occasioned by tonsillectomy when the virus is present in the community has been established by laboratory and field studies. Elective tonsillectomies and probably other elective operations of the nose and throat and perhaps of the intestines as well should not be performed during the poliomyelitis season, especially when cases are occurring in the community. Excessive exertion or overfatigue apparently also predispose to the disease and should be avoided in the presence of a poliomyelitis epidemic.

Influenza.—With the development of methods for the concentration of influenza virus a combined influenza "A" and "B" vaccine was prepared and tested in 1943 in 9 units of the Army Students' Training Program in various parts of the country. The results of these trials in 8 units, totaling 6,211 vaccinated and an equal number of control individuals, indicated a reduction of naturally occurring influenza "A" from 7.11 per cent in the controls to 2.22 per cent in the vaccinated groups. In a group at the University of California the vaccine appeared to have no influence. During 1945 even more striking results with the "A" and "B" vaccine were secured at the Universities of Michigan, Yale and Alabama in the face of an outbreak due to "B"

virus. The 1946-47 experiences were, however, discouraging, probably because the epidemic was occasioned by an "A" strain (F.M. 1) of slightly different antigenicity from the P. R. 8 or Weiss strains employed in the vaccine.

In an effort to guard against such failures due to variant-strain epidemics, the United Nations health organization, under the direction of C. H. Andrewes, is engaged in setting up "listening stations" in the coöperating nations, whose duty it will be to promptly isolate and classify the virus accountable for the outbreaks that may occur in any country. The hope is expressed that strains can be identified, and if found to be antigenically different from the strain employed in available vaccine, they might be cultured, produced and included in the vaccine sufficiently early to be employed in preventing any world-wide spread such as that of 1918. This hope seems futile. However, the plan should facilitate the acquisition of knowledge concerning the antigenic character of influenza strains from various parts of the world, and it should possibly facilitate the finding of strains possessing a wide antigenic coverage which for this reason would be especially desirable for inclusion in stock vaccines.

Rabies.—In recent years an increasing amount of attention has been paid to the stock strains of virus employed for the manufacture of the Pasteur vaccine and to the details of vaccine preparation, especially to the methods of inactivation of the virus and to the potency standards which must be met before the vaccine is accepted. It is believed that considerable improvement in the final product has thus been brought about.

Mumps.—The virus of mumps has been cultivated in the developing chick embryo, and complement fixation and skin test antigens have been developed which are of value in determining susceptibility and also in making a diagnosis. A vaccine has also been prepared which should prove of value if applied to adult susceptibles under special conditions, such as fresh recruits who are assembled in military camps.

Homologous serum jaundice.—Following the demonstration that human serum added to yellow fever vaccine was a source from which a virus hepatitis was being conveyed to vaccinated individuals, the danger incident to the administration of human serum, plasma, or whole blood became apparent.

The use of serum in yellow fever vaccine, therefore, has been discontinued. The danger of transmitting hepatitis by syringes improperly sterilized during mass bleedings has been recognized, and methods capable of rendering human blood products free from the hazard of transmitting the virus of hepatitis have been sought with encouraging results. Protective irradiation will probably be prescribed for blood products as soon as it can be demonstrated that the antibody content or other valuable features of the product are not injured by such procedures.

Attempts at controlling virus infections by chemotherapeutic measures have been receiving increased attention in recent years, but definitely effective treatments for virus diseases have not been found, provided we exclude the psittacosis meningopneumonitis group, which are not now considered to be true viruses by many authorities including Bergey. It may be said, however, that some progress in the development of leads is being made and that eventually effective chemical agents, it is hoped, will be found.

The death rates for most contagious diseases in the United States have been falling through the years, even for such diseases as measles, the incidence of which, for those who reach adulthood, is still practically 100 per cent. This fall in measles death rate is probably in part due to passive immunization of exposures, but it is also probable that many factors likewise effective against certain other ailments are involved, such as a wider dissemination of health education, the prevention of exposure at the most susceptible age periods, better community sanitation, higher standards of living, better means of combating complications and the like, as well as possibly less virulent strains of virus.

A CONSIDERATION OF SOME ASPECTS OF ALLERGY AFFECTING THE RESPIRATORY TRACT*

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THE cutaneous test for protein sensitization, first performed by Charles Hartison Blackley of England in 1865, has stood the rest of time. Its limitations have been fully recognized. In many cases it serves as a means of determining the agents responsible for the allergic manifestations in the respiratory tract. These include the various inhalants, such as pollens, animal danders, dusts of domestic and occupational origin, etc., and the ingestants, such as foods. A conservative estimate reveals, however, that positive skin reactions are obtainable in only one half to two thirds of all asthmatic patients. Upon this fact, Rackemann¹ based his etiologic classification of asthmatics as (1) the extrinsic group (40 per cent), who are allergic to some extracorporeal foreign protein and who develop symptoms on exposure to it, (2) the intrinsic group (46 per cent), the chief cause of which lies within the body, and (3) a miscellaneous, unclassified group (14 per cent).

With the growth of knowledge came an inevitable shifting within the groups. Thus, in 1925 the pollen of the English plantain,² in 1928 the pollen of the paper mulberry tree,³ and in 1929 sand flies⁴ were first described as causes of asthma. Accordingly, the list of specific excitants was gradually enlarged, and asthmatic cases hitherto regarded as of unknown etiology were more effectively treated. Of great importance was the recognition of molds as causative factors. The early observations by Van Leeuwen,⁵ Cadham⁶ and Hansen⁷ abroad and by Bernton,⁸ and Hopkins, Denham and Kesten⁹ at home have

added indispensable antigens in the study and treatment of patients.

Thus far, the emphasis has been placed upon the determination of the specific antigens for the purpose of instituting appropriate desensitization therapy in hay fever and asthma. The concept of an immunologic mechanism has been accepted as a good working basis. When a foreign protein is introduced parenterally into the tissues of a host, certain physiologic processes are initiated. The objective is to immobilize and eventually to eliminate that particular foreign protein upon its reintroduction. This specific reaction is mediated by antibodies through their capacity of combining with antigen. This union results not only in a disposal of antigen but also in a variable degree of injury to the host. Of timely interest is the liberation of preformed histamine when the union of antigen and antibody takes place in the presence of blood cells, skin and smooth muscle.

Attention needs be called to a number of asthmatic cases in whom the antigen-antibody reaction is not demonstrable. For convenience these are grouped under the heading of "Bacterial Allergy."

The etiologic relationship of acute infections of the respiratory tract to the asthmatic state has impressed itself upon clinical observers. There are asthmatics who definitely trace the onset of their disease to an acute infection, notably whooping cough, pneumonia and influenza. The asthma which supervenes after an interval of a few days to a few weeks from the termination of such infection is apt to be of a severe clinical type. This is especially true of the asthma

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which follows whooping cough. Peshkin, in an analysis of 100 cases of asthma in children, reports 15 per cent of the cases attributable to whooping cough. This distressing sequel should not be overlooked. It should serve as a plea for the enforcement of prophylactic measures against a serious threat to childhood. Likewise impressive is the large number of young adults whose perennial asthma has been a sequel to pneumonia or to the influenza pandemics.

By way of contrast, during an intercurrent infection of pneumonia or whooping cough in cases of asthma already established, asthmatic signs and symptoms are temporarily suppressed. The inhibition of the asthma-producing mechanism under such circumstances is as striking as it is challenging.

The number of individuals in whom asthma develops as a sequel to a "cold" commands serious attention.¹⁵ In my series, approximately 1 patient in 7 identifies himself with this group by a simple description of his disability. The classification of this form of asthma is based upon etiologic considerations. Accordingly, such terms as "bacterial asthma," "asthma of the infectious type," and "asthmatic bronchitis" have been introduced into the nomenclature. Walzer,¹¹ in a discussion and review of the subject of skin tests with bacterial proteins, concludes: "The specific diagnostic value of bacterial protein skin tests in connection with atopic hypersensitiveness still remains to be demonstrated." Moreover, the existence of bacterial allergy has not been proven to date either by the isolation of the active allergen from the bacterial cell or by the reproduction of symptoms by bacterial toxins or vaccines. We look hopefully to the progress made in the study of virus diseases for the prevention of the "common cold" and its potential asthma.

It may not be amiss to reiterate that allergic manifestations result from the explosive union of antigen and antibody within the tissues of the host. Intensive study of the chemical composition of antigens has been conducted during the

past 45 years. Newell¹² in a review of the subject states: "The sum of all this work is difficult to evaluate because of contradictory reports and lack of uniform methods for quantitative studies." In 1939 and 1940 Spies, Coulson, Bernton, and Stevens^{13,14} first reported the isolation of an allergenic fraction from cottonseed. Cottonseed was primarily selected because of the availability of material and its recognized potency as an allergen in some cases of hay fever and asthma.

The systematic alcohol fractionation of the water-soluble constituents of cottonseed yielded very active and specific fractions, which have been designated CS-1 and CS-1A. CS-1A represents approximately 1 per cent of the defatted cottonseed and contains 11.8 per cent nitrogen and 39.9 per cent polysaccharidic carbohydrate. In 1942¹⁵ globulin fractions of cottonseed were prepared after prolonged purification, which proved allergenic in some patients, sensitive to the whole cottonseed but not to CS-1A. The blood reagins of these cases were likewise specific for the globulin fraction. In 1943 another advance was marked by the isolation and chemical characterization of the allergenic fraction, CB-1A, from castor beans by Spies and Coulson.¹⁶ The procedure used in isolating CB-1A was similar to that developed independently for the isolation of cottonseed allergen, CS-1A, in 1939.

The following summary of the properties of the castor bean allergen should be welcomed by clinicians and investigators in fundamental studies of allergy. "CB-1A is a non-toxic, heat-stable, dialyzable, polysaccharidic protein component of castor beans. It represents 1.8 per cent of the defatted castor bean meal. Chemical properties and amino acid content of CB-1A were remarkably similar to those of the previously characterized cottonseed allergen. Both CB-1A and CS-1A were characterized by relatively high proportions of arginine and cystine but CB-1A in contrast with the cottonseed allergen contained no tryptophane. Both proteins also contained histidine, lysine, tyrosine, and glutamic acid in

addition to unidentified nitrogenous compounds in the mono-amino and dicarboxylic acid groups.

"The allergenic proteins of cottonseed and castor beans are composed of the usual amino acid components of ordinary proteins, but the molecular size of the allergenic proteins is much smaller than that of ordinary proteins. Thus the allergens of cottonseed and castor beans readily pass semipermeable membranes that are impermeable to ovalbumin."

Our work has conclusively established the existence of multiple allergens, and this entire question has been removed from the realm of probability to the realm of actuality.

A remarkable physical property of the allergenic protein fractions, CS-1 and CB-1, isolated from the cottonseed and castor bean respectively, is their resistance to heat. Thus, CS-1, dissolved in water and autoclaved at 125° to 130°C. for an hour gave positive cutaneous tests in the dilution of 1:10⁵. It must not be concluded, however, that all allergens share identical properties. Ample clinical evidence has been presented to attest to the concept that the physicochemical characteristics of allergenic fractions vary from each other not only in different substances but vary from each other in the same substance.

A patient was tested by the cutaneous method with an extract of celery. The reaction was strongly positive. The typical wheal with pseudopod formation was accompanied with considerable itching. The patient then exclaimed: "That is what happens on my lips when I eat raw celery. But I can eat cooked celery as in soups without any trouble." It is apparent that one allergen in celery is heat-labile in contradistinction to the heat-stable allergens, CS-1 and CB-1. The classic observation of Prausnitz and Kustner¹⁷ in their work on passive transfer stands out in marked contrast. Kustner, it will be recalled, was fish-sensitive. Uncooked fish produced no allergic disturbances in him; but fish when cooked and subjected to a temperature of 55°C. became actively allergenic; in fact, cutaneous

tests, positive with a boiled extract, provoked constitutional reactions.

The possibility of an allergen in volatile form now demands consideration. Feinberg and Aries¹⁸ in 1932 reported cases of asthma which were provoked by exposure to the odor of cooking shrimp, peas and lentils. A case, described by Spain¹⁹ in 1933, proved even more sensitive. It was that of a man who suffered from asthmatic attacks whenever he passed a fish market. A patient of mine with an extreme sensitiveness to buckwheat invariably developed asthma in a very severe form upon entering an apartment house in which buckwheat cakes were being fried. The high degree of specific sensitiveness on the part of the allergic individual, the multiplicity of allergens, and their variability in physicochemical behavior, as outlined above, provide a preview of the state of allergy. No acceptable hypothesis has been advanced to date which will explain the cause or causes of susceptibility. The knowledge, however, of the chemical properties of the allergen may reveal the nature of the linkage between it and the tissue cells, which gives rise to clinical sensitization. Likewise, the loss of the combining power of tissue cells with the allergen may unfold the mechanism of the loss of susceptibility which occasionally occurs. The ultimate significance of the biochemical contributions which have been described cannot be overestimated.

In 1939 I²⁰ called attention to a constitutional disturbance in hay fever subjects which transcends in importance the local manifestations of the disease. The disturbance is one which affects the heat-regulating mechanism of the body. It is rendered unstable. This condition was adequately described by a hay fever victim when he bewailed the fact that his thermostat was out of order.

The term "hay fever" is a paradox. It is an afebrile disease except when complicated by an acute infection. However, hay fever victims do feel hot. The skin is usually warm because of the dilatation of the blood vessels therein. This

condition is not unlike that seen in alcoholic intoxication and explains the blush and flush of inebriety. Loss of body heat inevitably results. External warmth satisfies the inner demand. Patients stand under a hot shower or in front of baking ovens with doors open or expose themselves to the steam of cooking vessels to compensate in part for the loss of body heat. They aver that by so doing they feel more comfortable. The hay fever subject, moreover, is likely to have a ravenous appetite. His body demands more food for conversion into heat units. Conversely, any circumstance which tends to dissipate body heat will provoke or aggravate the symptoms of the disease. Inadequate clothing, exposure to drafts or to electric fans, stepping out of bed on a cold floor, iced beverages, driving in an automobile with the top down, sitting or working in an uncomfortably cooled atmosphere initiate reactions of distress. These may be summarized as follows: Rapid cooling of the body surface, dissipation of body heat, attempt to conserve body heat by the contraction of blood vessels in the skin, the collection of the resulting excess of blood in the turbinates or "swell bodies" in the nasal chamber, paralysis of the nerve mechanism of the turbinates and their consequent engorgement give rise to stuffiness of the nose, profuse nasal discharge and sneezing. "Keep warm inside and outside" is a slogan which should be adopted in a campaign of freedom from allergic manifestations.

The current treatment of the asthmatic includes prophylactic and phylactic measures, the value of which has been impressed on physician and patient alike. The list includes control of environment, the use of air-filtered and dust-free rooms, and the elimination of offending foods and desensitization with appropriate extracts. Such drugs as epinephrin, ephedrine, propadrine hydrochloride, aminophyllin, and the iodides, and penicillin, streptomycin or the sulfonamides in infectious complications offer effective means for the control of symptoms. To these must be added adrenalin-inhalation therapy, aerosol ther-

apy, and the inhalation of helium-oxygen mixtures. In recent years we have witnessed the introduction of several synthetic antihistaminic drugs. Their antagonism for histamine has been strikingly demonstrated in laboratory animals. This fact has been advanced as a justification for their use in man in neutralizing the effects of histamine action on tissues. Reference has been made to the liberation of histamine in antigen reaction with antibody. Although the histamine theory of allergy serves as a useful guide, it has not been generally accepted as one which will explain all allergic reactions. Ratner²¹ has listed 17 points against the acceptance of the histamine theory. Nevertheless, these newer drugs have some clinical usefulness. They should supplement and not supplant other therapeutic procedures.

It is significant that the antihistaminic preparations are of very limited value in the treatment of asthma. This observation lends support to the opinion that agents other than histamine are excitants of asthmatic paroxysms. A summary of the use of these newer drugs is of timely interest. It is to be emphasized that they are only palliative measures and confer no immunity. Their relief is of short duration, a matter of a few hours. Moreover, some types of allergic manifestations are not affected by them, and the immediate toxic symptoms make their continued use impossible. Time alone will reveal their remote toxic and cumulative effects.

We have, indeed, been overwhelmed and, in some cases, overcome by the recent deluge of antihistaminic drugs. Salter,²² in 1868, 80 years ago, must have envisaged the therapy of our day when he made the statement, "It must be admitted that the remedies for asthma are of very irregular and uncertain operation; that probably there is no single remedy that is not inoperative in a large number of cases; that that which is useful in one is valueless in another, while there are many cases that resist all remedies."

It has been indicated that so-called "bacterial allergy" as a cause of asthma does not conform to

the antigen-antibody concept. In fact, the recognition by allergists of an intrinsic group and an unclassified group of asthmatic patients betrays the gaps in our knowledge. Moreover, the unpredictable behavior of asthmatics cannot always be explained by increased or decreased exposure to allergenic substances. Accordingly the psychosomatic aspects of allergic manifestations have been increasingly stressed within recent years. Somatic reactions, we are told, will often take place in the organ or organs to which the patient's attention has been previously drawn.

Abramson²³ makes the plea that the practice of allergy be released from the restrictions imposed upon it by the specificity of immunologic reactions and that the field of allergy be expanded to include modifications of neurovascular physiology. Thus mental and emotional factors are added to the chemical and physical factors in etiology. The feelings of frustration, grief, apprehension, excitement, and "nervousness" of everyday life activate the trigger mechanism of hay fever or asthma. Even psychic trauma, it has been suggested, plays an important role.

We are now living in an age unparalleled in human history, and mass experiments have been unwittingly carried on. In the Old World, as the result of a devastating war, physical and psychic trauma, malnutrition and starvation have left an imprint on the survivors. In the Far East the effects upon the genes by irradiations from atomic explosions will be disclosed by a new generation.

Twenty years hence, when the rising generation shall have reached maturity, the medical historian will then have the rare opportunity not

only to compare and contrast the state of allergy in this country with that of Europe and Asia, but also to make an accurate evaluation of primary and secondary factors.

BIBLIOGRAPHY

1. RACKEMANN, F. M.: *Clinical Allergy Particularly Asthma and Hay Fever, Mechanism and Treatment*. New York: Macmillan, 1931, p. 375.
2. BERTON, H. S.: *J. A. M. A.*, 1925, **84**, 944.
3. BERTON, H. S.: *J. Lab. & Clin. Med.*, 1928, **13**, 829.
4. PARLATO, S. J.: *J. Allergy*, 1929, **1**, 35.
5. VAN LEEUWEN, W. S.: *Proc. Roy. Soc. Med., Lond.*, 1923-24, **17**, Sect. Therap. & Pharmacol., 19.
6. CADHAM, F. T.: *J. A. M. A.*, 1924, **83**, 27.
7. HANSEN, K.: *Verhandl. d. deutsch. Gesellsch. f. inn. Med.*, 1928, **40**, 204.
8. BERTON, H. S.: *J. A. M. A.*, 1930, **95**, 189.
9. HOPKINS, J. G., DENHAM, R. W., AND KESTEN, B. M.: *Ibid.*, 1930, **94**, 6.
10. BERTON, H. S.: *M. Ann. District of Columbia*, 1936, **5**, 164.
11. COCA, A. F., WALZER, M., AND THOMMEN, A. A.: *Asthma and Hay Fever in Theory and Practice*. Springfield, Ill.: Thomas, 1931, p. 261.
12. NEWELL, J. M.: *J. Allergy*, 1942, **13**, 177.
13. SPIES, J. R., BERTON, H. S., AND STEVENS, H.: *Ibid.*, 1939, **10**, 113.
14. SPIES, J. R., COULSON, E. J., BERTON, H. S., AND STEVENS, H.: *J. Am. Chem. Soc.*, 1940, **62**, 1420.
15. SPIES, J. R., CHAMBERS, D. C., BERTON, H. S., AND STEVENS, H.: *J. Allergy*, 1942, **14**, 7.
16. SPIES, J. R., AND COULSON, E. J.: *J. Am. Chem. Soc.*, 1943, **65**, 1720.
17. PRAUSNITZ, C., AND KUSTNER, H.: *Centralbl. f. Bakt.*, 1921, **86**, 160.
18. FEINBERG, S. M., AND ARIES, P. L.: *J. A. M. A.*, 1932, **98**, 2280.
19. SPAIN, W. C.: *New York State J. Med.*, 1933, **33**, 1100.
20. BERTON, H. S.: *Hay Fever: What to Do About It*. Washington: Ransdell, 1939.
21. RATNER, B.: *Allergy, Anaphylaxis and Immunotherapy: Basic Principles and Practice*. Baltimore: Williams & Wilkins, 1943.
22. SALTER, H. H.: *On Asthma: Its Pathology and Treatment*, 2nd ed. London: Churchill, 1868.
23. ABRAMSON, H. A.: *Nerv. Child*, 1948, **7**, 86.

THE IMMEDIATE TREATMENT OF COMMON FRACTURES*

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T IS the purpose of the fracture committees of the American College of Surgeons, the American Academy of Orthopaedic Surgeons, and the American Medical Association to keep surgeons interested in fractures acquainted with the methods used which have become standard or accepted in a large sense. It is significant that there is recognition generally, by the public and by physicians, of the fact that fractures of long bones constitute an emergency and that treatment should be given at once at the place where the fracture occurs with properly applied splinting. In a recent comparison of end results in Great Britain it was found that results obtained in a hospital having a modern fracture department were much superior to those reported from hospitals where such a department was not available. Better results were obtained by standardization of treatment, such as segregation of the cases under one control and continuity of treatment and after-care. This lesson has been so well learned that even small hospitals with proper organization of fracture services can get excellent results. It is therefore essential for those who propose to treat fractures to understand the fundamental facts in the development and growth of bone, metabolism and bone repair, both in disease and in healthy or normal conditions. Sir Reginald Watson-Jones¹ expresses these sentiments as follows: "The principles of treatment of fractures must conform to biological laws, and knowledge of these principles is of greater fundamental importance than any acquaintance with mechanical details of splints.

Training of the fracture surgeon must begin with the physiological and pathological reactions of living tissues. Only after that does the art of surgery develop with the aid of mechanical apparatus and manipulative technique."

We often hear the term "simple fracture" used, but it is the opinion of a good many orthopedic surgeons and those interested in fracture treatment that this term should be no longer used, and it has been suggested that the term "simple complex fracture" be used. The reason for this is that sufficient force, direct or indirect, producing fractures of various types, comminuted, simple or otherwise, has a complex background of damage to soft tissues, such as injury to the periosteum, the blood supply and the muscles and fascia, and in many instances causes paralysis from disturbance of function of the nerve supply. As hemorrhage accumulates from the ends of the bones and the damaged soft tissues, edema and cellular infiltration ensue; the tissue spaces become much distended, the shortening is aggravated, and difficulties of reduction and correction of the deformity are increased. The swelling increases as the vascular channels are disturbed; this can readily be understood as being a very complex condition which sometimes is not completely recognized.

We have all read in our fracture manuals, Red Cross and other books, the term, "Splint them where they lie." When a physician is called to the site of an accident and is asked to examine an individual who has been injured and fracture is suspected, it is very unwise to move the patient, because many tragedies have occurred as a result of the desire to move the patient to a differ-

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ent position, such as sitting up in a car for removal to a hospital or being raised into a flexed position of the trunk when spinal injury has occurred. It is therefore wise for the physician to examine the patient at the scene of an accident to determine the extent of injuries. This can be done rapidly and gently, and by asking the patient what part is painful, whether he can move the part, and even by superficial palpation, a general idea can be gained as to whether there is a fracture or not. If there is disturbance of function, if there is apparent shortening, rotation deformity, or other abnormality in the appearance of the extremity, it is wise to assume that there is a fracture, and the patient should be treated as having one until proved otherwise. The use of the Thomas splint, both for the lower and upper extremity, in World War I reduced the fatalities from injuries of the femur and upper extremity from 80 per cent to 20 per cent, and the principles laid down by Hugh Owen Thomas and Sir Robert Jones are still good practice today. It is therefore incumbent upon the physician attempting to treat fractures to have the patient transported as quickly and carefully as possible with proper splinting. It is always well to remember that a damaged part should be splinted both above and below the fracture, including the joints, in order to protect the injured part and minimize motion. We also recognize the fact that undue handling, undue manipulation, and forceful motion about the site of a recent injury or fracture will produce more hemorrhage, more damage to the tissues, and possibly cause more severe sequelae. If there is any bleeding and deformity at the site of an injury, indicating the probability of a compound fracture, it is wise to apply immediately sterile gauze and a compression dressing as well as the splinting. If there is severe deformity which would prevent proper splinting and transportation, it should be reduced by gentle steady traction, and then the splint should be applied. In this way it is possible to avoid further injury to the blood vessels, soft tissues, muscles, etc. Support

to the part to minimize hemorrhage, pain and shock is thus vitally important.

It must be remembered that shock is a concomitant of injuries. Some degree of shock is present even in what might be called a simple complex fracture, because in many instances there is more than one injury and in most cases the shock is the primary thing to treat. This treatment should be designed to keep the patient warm and as comfortable as possible with sedation to relieve pain. Stimulation should be given orally or hypodermically, as indicated, and simple things like hot coffee or aromatic spirits of ammonia may be used. If the shock is severe, the horizontal position is best with the feet raised as the stretcher is moved into the ambulance, and the patient should be transported at once to a hospital for further immediate treatment. Adequate roentgenograms may later be taken before definitive treatment is carried out. This is particularly necessary in view of the fact that what might appear to be, for example, a dislocation of the shoulder, may be a comminuted fracture-dislocation, and a simple manipulation would only aggravate and further damage tissues.

Splints are adequate only for transportation, and we have found that correction of any deformity by gentle manipulation, with or without an anesthetic, as indicated, and the application of a plaster cast, with the extremity placed in a neutral position to eliminate possible sag or strain at the fracture site, is a very wise measure. In the application of splints, compression is often lateral and medial, and edema and swelling will occur where the splint is not giving proper support. Application of a plaster cast, elevation of the part, and application of ice will relieve most patients of their pain and shock, and further procedures can be done when the patient's general condition permits. The use of intravenous saline solution, plasma or whole blood, where there is evidence of peripheral vascular collapse, is a most important measure.

I wish to quote from the book recently pub-

lished by Dr. Magnuson² of Chicago, and now of Washington, D. C., who states, "The fundamental highlights of fractures are: 1. Splint them where they lie. 2. Shock is caused by fracture and is made worse by handling. 3. Treat the shock, stop the hemorrhage, splint the fracture, and transport the patient to a hospital. 4. Treat the wound and reduce the fracture after recovery from the shock. 5. Study the muscles and their pull. 6. Bring the fragments which can be controlled into alignment and rotation with the fragments which cannot be controlled. 7. Check frequently with X-ray. 8. Watch fixation apparatus constantly. 9. Allow no painful points of pressure under any splint or cast. 10. A fracture properly reduced and held in reduction is painless." If the fracture is compound, it requires immediate treatment, and it has been stated with good authority that the first 6 hours after injury are the golden hours of opportunity. The reason for this statement is that if one immediately attends surgically to a compound fracture, before the elapsed time of 10 or 12 hours, it is possible to do a complete débridement, cleanse and wash the wound, reduce the fracture and close the skin, or, if there is a skin defect, transplant a flap across the area of the fracture. The immobilization following this procedure is usually by means of plaster or can be accomplished by skeletal fixation or suspension traction, preferably with wire traction control. If, however, the compound fracture is allowed to go beyond the golden hours of opportunity, we must then consider it as potentially infected and the sequelae which may result from wound infection, destruction of tissue, and chronic infection of bone or osteomyelitis render the problem much more complicated and prolonged, with great economic loss and difficulty in obtaining union of the fracture.

There are many methods to consider as regards treatment of both open and closed fractures. It is well to remember that a simple manipulation and reduction should be attempted, and this should be done with the utmost care and with

fluoroscopic control if necessary. The consideration of open reduction in fractures is sometimes overdone. It is wise to remember that if one proceeds to do an open reduction he may be producing a complication which may result in a surgical tragedy. The use of open reduction is necessary in certain types of fractures. The separation fracture of the olecranon process, the fracture of the neck or trochanter of the femur, the fracture of the patella, and the separation-fracture-dislocation of the malleoli of the ankle are examples. Fractures of the condyles of the femur and of the tibial plateau often require open reduction, because if they are not properly and adequately reduced they will produce severe disability. If there is also a loose fragment lying in the joint which will not respond to manipulation, it is usually necessary to remove the fragment. Spiral fractures of the tibia are almost impossible to maintain reduced in traction or plaster, and the patient will get a much better result by a prompt open reduction and adequate fixation with a minimum of metal. Fractures of both bones of the forearm, which are fairly common in adults, often require open reduction and fixation, since they are almost impossible to hold with other forms of apparatus. There is also the Monteggia fracture of the elbow combining dislocation of the head of the radius and fracture of the ulna, and this requires, in many instances, internal fixation of the ulna and reduction of the radial head.

Fractures which should not be reduced by the open method are those of the pelvis, scapula, clavicle, phalanges of the hand and foot, and recent fractures of the carpal scaphoid. These should all be treated by conservative methods, preferably with plaster fixation. It is a great mistake to do an open reduction of the clavicle because of the danger of infection and also the very likely resulting nonunion. A patient with even overriding and shortening of the clavicle will get a functional result which is satisfactory.

In considering fractures occurring in children it should be remembered that open reduction is

almost always contraindicated except in fractures of the head of the radius with rotation, and there is sometimes a tendency to remove this fragment, but it should never be done. The open reduction should be resorted to if necessary to get a good functioning elbow, but the usual fracture around the elbow in children can be reduced by closed manipulation and properly maintained with an excellent result. If there are wide displacements of fragments at the elbow, which cannot be reduced, it is often necessary to open and reduce the displaced condyle, either lateral or medial. It should be remembered, however, that in children the bone is constantly growing and that with growth the fracture will often overcome what appears to be rather marked overriding or deformity; consequently a conservative attitude should be maintained for practically all children's fractures.

In our experience Colles' fracture is one of the most common injuries as a result of a fall. It is common enough to require constant attention to the details in order to get a good result. The patient usually tries to break the fall instinctively by falling heavily on the hand, and the force transmitted often produces the typical Colles' deformity. It is very necessary, therefore, to analyze these cases carefully as to the type of deformity and the degree of comminution. Usually there is impaction of the lower end of the radius with tilting backward of the distal fragment, tearing of the triangular ligament, and often fracture of the tip of the ulna. In order to reduce and maintain a fracture of this kind it is necessary to have the patient under anesthesia and relaxed so that either traction or manipulation can be done, or a combination of the two. Restoration of the length of the radius and the position of the wrist is important. These fractures cannot be reduced by manipulation without anesthesia. It is important, also, to remember that a perfect reduction will give an essentially excellent result and that if the fracture is not reduced the stiffness and fibrosis of the hand that will follow often produce severe and permanent

disability. In cases in which it is difficult to maintain the correct position of the lower end of the radius and in which there is marked comminution and crushing of bone fragments, it is often necessary to place a traction wire through the proximal phalanx of the thumb in order to maintain the extended position.

Today we have many elderly people, more than we had 25 years ago, and the incidence of fractures of the hip is therefore much greater. We have now a satisfactory means of maintaining reduction by internal fixation, and it is important that these elderly patients be operated on as promptly as possible, because the longer they have motion in the fracture area, the greater the amount of pain and shock and the more the vitality level distinctly decreases. It is therefore considered by many that the fracture of the hip in the aged constitutes a real emergency and should be operated upon as soon as the general condition permits.

The injuries about the spine are vitally important. Any patient who has had a hard fall in the sitting-down or jackknife position and who complains of discomfort in the abdomen and low back, or even in the upper back or cervical region, should be considered as having a fracture of the compression type until proven otherwise. It is usually easy to diagnose these cases because the patient has tenderness over the injured area and is unable to flex the spine without pain, and there are often attendant symptoms of shock and ileus of the gastrointestinal tract as a concomitant of the shock mechanism. It is therefore important that these cases should be recognized early. Many are overlooked because they are thought to be strains or contusions, but it is wise always to get complete roentgenograms of the spine and to remember that about 85 or 90 per cent of the injuries of the compression type occur in the dorsolumbar segment, whereas roentgenograms are often taken of the lower lumbar area below the fracture level. As a word of caution one must remember to include the dorsolumbar area especially. If the patient has had a hard

fall in the standing position, fractures of the calcaneus may result, and it must be remembered that a compression fracture of the spine may follow as a secondary injury in fractures of the calcaneus.

The public today is well aware of the importance of X-ray records, and it is most essential that films be taken as soon as the patient reaches the hospital. In this way an accurate estimate can be made as to the type of fracture, how it should best be handled, and what plan of treatment to adopt. After a satisfactory reduction has been accomplished an X-ray film is most necessary as a follow-up. This is not only a record but a verification of the surgeon's work. Caution is urged in allowing a fracture to remain in plaster for an arbitrary period of time on the assumption that the fracture is maintained in its position and that it is healing properly. It is well to remember that the greatest swelling occurs during the first 4 or 5 days, and that as the swelling subsides and the padding in the cast tends to flatten, the support and immobility of the fracture are impaired. Many times, therefore, it is wise to maintain a satisfactory reduction until the swelling has subsided and readjustment may then be made by changing the plaster to a snug, well-fitting cast to maintain the proper position. It is well also to get roentgenograms of the fracture before the end of 2 weeks to determine accurately whether the fixation is adequate and the reduction is maintained. Failure to do so will often end in disastrous results. It is wise also to check at frequent intervals, every 3 to 4 weeks after that time, to be certain as to the degree of healing or whether any change has occurred. If the patient complains about undue discomfort or even mild symptoms of burning or pressure irritation, it is well to investigate.

One must know his plaster technic; to understand exactly how to apply a plaster cast is a

matter of skill and experience, and I may say that those of us who have used plaster for years have developed our own technics and are aware of the necessity of avoiding pressure to various areas which might cause difficulty. These areas in the inferior extremity are, particularly, the malleoli, the heel, the lateral aspect of the knee, the great trochanter, and the anterior-superior spine of the ilium. In the upper extremity the olecranon and medial condyle need special attention.

An adequate training period is necessary for all those who are doing fracture work. The fracture problem today can be solved by better cooperation among those of us who are working with this specialty. It is interesting to note that there is a feeling in groups interested in fractures that a standardization of procedures and understanding of the various methods are most essential before a fracture service can be recognized as adequate in any city, not only in the United States but also in cities throughout the world. I was interested recently in a story by a surgeon in a large South American city who found that there were areas where fractures were not properly treated and inadequate control of transporting the injured had produced many poor results. He organized the fracture surgeons in his city and set up a satisfactory fracture clinic in one of the hospitals in the city. The improvement in end-results in this hospital was striking. It is also urged that all surgeons interested in treating fractures obtain proper equipment in order that the difficult fracture problems which arise may be correctly handled, thus assuring the best possible results for the patients.

BIBLIOGRAPHY

1. WATSON-JONES, R.: *Fractures and Joint Injuries*, 3rd ed. Baltimore: Williams & Wilkins, 1946, vol. 1.
2. MAGNUSON, P. B.: *Fractures*, 3rd ed. Philadelphia: Lippincott, 1939.

MEDICAL MISCONCEPTIONS

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RECENTLY conducted a series of weekly broadcasts sponsored by the Medical Society of the District of Columbia over a local station for the Mutual Broadcasting Company for 14 continuous months. We received many inquiries from listeners, which showed that people were intensely interested in health matters and that they had many beliefs which were not true. These letters were all answered either over the air or by mail. I hope that I may be able to help correct some of the misinformation which appears to be so widespread by publishing some of this correspondence:

Q. Is my blood pressure normal if it is 100 plus my age?

A. Normal systolic blood pressure is between 116 and 145, regardless of the age of the patient. If you are 20 and your systolic pressure is 120, your rule will hold. If, however, you are 60 and your blood pressure is 160, you have high blood pressure. If your systolic blood pressure at any age is below 116, you have low blood pressure.

Q. Are red meats and alcohol harmful to persons who have high blood pressure?

A. No. They are beneficial. It was formerly thought that persons with high blood pressure should abstain from meats. We now know that the variety of the food you eat, provided it agrees with you otherwise, is not detrimental to high blood pressure. The quantity of your food must be limited because overeating at any one meal is very harmful. Red meats help to prevent anemia which sometimes occurs with high blood

pressure. Alcohol is the safest sedative known and doctors frequently prescribe a drink or two a day because it helps dilate the blood vessels of the skin and relieves temporarily the load of blood in the resisting walls of the arteries deeper in the body. Sedatives reduce high blood pressure.

Q. Is fish a brain food?

A. Fish is an easily digested, valuable food. It nourishes the whole body but has no particular effect upon the brain.

Q. Do sweets cause tooth decay?

A. The dental profession has not yet solved the question as to what causes tooth decay. People who indulge in sweets have tooth decay. But just as many who eat sweets moderately or not at all have tooth decay. The application of fluorine to children's teeth appears to delay or to prevent tooth decay.

Q. Is it unwise to eat shell fish and ice cream at the same meal?

A. It is not. Some people are allergic to shell fish, and some are allergic to cream. These people would be ill if they ate either. Creamed crabs, lobsters, and oysters are taken without harm, and there is no reason why shell fish and ice cream cannot be taken at the same meal.

Q. Do lemons, oranges, and grapefruit cause acidity?

A. No. Citrus fruits are alkalis, so that they cannot be said to increase the acidity of the body.

Q. Is purgation the proper treatment of abdominal pain?

A. Decidedly not. Always consult your doc-

EDITOR'S NOTE: The editor was impressed with the excellent answers given to these common questions of laymen and hopes that all of the readers of the MEDICAL ANNALS will read the questions and answers with the same interest that the editor did.

tor if you have abdominal pain. The pain may be due to appendicitis or to the perforation of a peptic ulcer. If you take a purgative with either of these conditions, your death will be hastened. Purgation should not be resorted to before the doctor has made a diagnosis. If you must do something, take an enema.

Q. I have heard that fruit is golden in the morning, silver at noon, and lead at night.

A. Fruit is golden all the time. It is just as good for you at night as it is in the morning.

Q. Are fat people always carefree and jolly?

A. Many persons who are excessively overweight are quite the opposite. Some small minority of fat people are victims of disorders of the endocrine glands. The great majority, however, are fat because they consume more calories than can be used in the body. The excess of calories is stored as fat. Eating is the only pleasure many of these people know and they use food as an antidote for hurt feelings, worry, and for life's other troubles. While they are eating they can forget their troubles, and they consume more calories than they should.

Q. I am forty and fat and I feel well all the time. Why should I reduce?

A. Because you are straining your heart, blood vessels, and kidneys unnecessarily. Because you are courting diabetes and gall bladder disease. Because you are shortening your life by continuing these strains.

Q. Is it unwise to drink water with my meals?

A. No, it is not, provided that the water is not too cold, and provided that you do not use the water to wash down unchewed food. Nature has provided a groove in the stomach through which water may pass without diluting the contents of the stomach which are being digested.

Q. Why does intoxication occur sooner when the drinker imbibes a variety of alcoholic beverages than when he continues to use only one form of beverage?

A. Alcoholic intoxication is present when the circulating blood contains 0.153 per cent of alcohol. The kind or the variety of the beverage makes no difference. Each beverage is prepared with flavoring which makes it palatable, and when a variety of beverages is consumed at one sitting the stomach rebels because of the mixture of flavoring ingredients, and the drinker becomes ill and vomits. He thinks he is intoxicated because of the nausea and dizziness, but unless he has absorbed sufficient alcohol he is not intoxicated. Food in the stomach delays absorption of alcohol. The amount of alcohol absorbed determines the extent of intoxication.

Q. What is the food value of broth or soup which is often given to invalids?

A. Exactly the food value of the rice or barley at the bottom of the cup. Broth and soup are solutions of salt and extractives of meat, and they are excreted by the body without contributing to the heat, energy or tissue building. These are the functions of food. The only effect of broth or soup is to increase the appetite of the patient by stimulating the secreting glands of the mouth or stomach. This news will be a disappointment to the kind neighbor who selects tender beef and spends hours to make what she thinks is a good nourishing broth. Meat extractives are not food.

Q. Do antiseptic tooth pastes and gargles kill the germs in the mouth and throat?

A. Antiseptics do not kill germs. Germicides do this. If antiseptics are applied in sufficient strength and for a sufficient length of time, they are effective in inhibiting the growth of germs, but they will not kill them. To be effective, an antiseptic must be in contact with the germs for hours. Tooth pastes and gargles are washed away by the secretions of the mouth in a few minutes. They can have no effect in spite of what the advertisements may say.

Q. When my grandfather went to school his mother made him wear a bag containing asafetida

suspended on a string around his neck to prevent his contracting infectious disease from other children. What was the virtue in this?

A. Asafetida is a drug which was once used as a sedative for nervous people. It smelled "to the high heavens." The only virtue in the practise to which you allude was that no other children would come near the wearer of the asafetida bag. Your grandfather was thereby well protected from catching their diseases. His social life, however, must have been considerably impaired.

Q. Are boils due to impure blood?

A. They are not. Boils are due to infection of the skin by pus-forming germs, usually the staphylococcus. They occur in certain people who are usually under par from fatigue, improper eating or disease. Diabetics are particularly liable to have boils; also those who bathe too infrequently.

Q. Why are rusty nails said to be dangerous?

A. Because they usually lie on the ground exposed to dampness. This ground may be fertilized garden soil or soil contaminated with the excretions of the cow or horse. These excreta often contain tetanus germs, and tetanus germs cause lockjaw. We may walk on this ground and get some of these germs on our shoes. If we then step on a nail and the shoe and foot are punctured, we may get lockjaw because the germs on the shoe are driven into the flesh. A nice, bright, shiny nail could do this job quite as well. There is nothing harmful to the body in rust, which is merely oxidized iron.

Q. Why do some people heal more quickly than others after they have been cut or scratched?

A. Unless one person is debilitated by disease or lacks vitamins, or unless the wound is infected, he will heal in exactly the same time as anybody else. Many patients take pride in telling the doctor how quickly they heal. But the doctor has heard this so many times he just

smiles to himself and refrains from disillusioning them.

Q. Does carbon monoxide have a characteristic odor?

A. Carbon monoxide has no odor at all, which fact makes it particularly dangerous. It is a product of incomplete combustion, and it is found coming out of the exhaust of automobiles, also out of furnaces and stoves when they are in need of repair. It acts on the body by combining with the coloring matter in the blood, thereby preventing oxygen from combining with it. The result is that the cells suffocate, causing the death of the person affected.

Q. I have a large mole on my shoulder and I have heard that cancer may result if I have it removed.

A. There is no danger of cancer if the mole is removed properly, which means entirely. A mole on the shoulder should be removed because your clothing probably irritates it. One of the things we know about cancer is that it often results from continuous irritation. Any mole on any part of the body should be removed if it changes its size or its shape, because moles frequently become cancers.

Q. Why is night air unhealthy?

A. Night air is not unhealthy. Sometimes it is more healthy than day air. In industrial cities where there is a good deal of smoke and dust during the day the air is more healthy at night when the day's activities are over. Night air probably got its bad reputation before we learned that malaria can be transmitted only by the *Anopheles* mosquito. This mosquito flies only at night, and people exposed themselves to the mosquito while it was flying. They had chills and fever and blamed it on the night air.

Q. Is it necessary to health to open the window in the bedroom at night?

A. Many people think that to be fresh, air

must be cold. They are wrong. Warm air can be just as fresh. The important thing is to have circulating air. On a cold night enough air seeps through the doors and the windows to provide good circulation. Leave your bedroom door open; keep the window closed if you like. You will continue to be well.

Q. Is it true that cats should be excluded from the nursery because they may suck the baby's breath?

A. No, it is not true. This is a base libel against cats and was probably made up by a rat.

Q. Can too frequent bathing of the body be harmful?

A. Yes. Some individuals do not secrete as much oil from their skins as others. Too frequent application of soap causes unusual dryness of the skin of some people and leads to irritation, itching, and rashes which are uncomfortable and unsightly. A biweekly bath is good practise.

Q. If I wear my rubbers all day, will my eyesight be affected?

A. No. There is no connection between the eyes and the feet.

Q. Are fever blisters the result of an upset stomach?

A. Fever blisters are caused by a virus infection and they are not related to a stomach disorder. There are many varieties of the virus responsible for many disorders. Among the conditions caused by virus are smallpox, poliomyelitis, rabies, mumps, measles, the common cold, certain forms of pneumonia, influenza, warts, shingles, and so on. We do not know enough about the treatment of virus diseases.

Q. Are warts caused by handling toads?

A. No. Warts are caused by a virus infection. It is possible to infect others by contact. Warts disappear sometimes in a mysterious way, and whatever home remedy may have been applied before they disappeared is given undeserved

credit. Doctors treat warts by destroying them with the knife, X-rays, cautery, or the application of drugs. Sometimes the warts persist or recur after the most rigorous treatment.

Q. I felt a cold coming on last night, so I took whiskey and aspirin. This morning my cold was gone. Why don't the doctors use this treatment?

A. Your "cold" would probably have been gone this morning if you had taken nothing. Many upper respiratory congestions are due to allergy which may stop acting in a few hours. Colds are virus infections, and the particular strain of virus may not be virulent enough to carry through after infecting the individual. The cold is thus aborted. A real infection by the virus of the common cold is not influenced by medication for several days. The best treatment for a cold is rest in bed. Medicines are usually given to afford comparative comfort to the patient. After the first week penicillin by inhalation appears to be of benefit.

Q. Can any medicine be taken by mouth to dissolve gallstones?

A. No. Gallstones cannot be dissolved in this manner. Surgical removal is the only remedy.

Q. Should we feed a cold and starve a fever?

A. Food does not taste good when we have a cold, and we should certainly not overload the stomach at this time. When we have a fever we have no desire to eat anyway, so that this superstition appears to have no proper basis.

Q. I have been told that I have heart disease. I must be operated upon for hernia, and I am afraid to take an anesthetic.

A. There are many forms of heart disease. Most are improved by anesthetics. The principal condition in which anesthesia should not be administered is cardiac decompensation. There is little cause for fear from anesthesia today if it is administered with plenty of oxy-

gen and if it is given by a specialist who has a wide variety of anesthetics from which to choose. The anesthetic may be administered by inhalation, by vein, by spine, by blocking the nerves directly, or by infiltration. Go ahead and have your operation.

Q. I am told that flowers absorb oxygen and should always be removed from the bedroom at night.

A. Flowers keep better in the open air. They do absorb oxygen, but not nearly so much as another person in the room. They are not dangerous.

Q. Does insulin cure diabetes?

A. There is no cure for diabetes. The blood of the nondiabetic person is supplied by his pancreas with an internal secretion which neutralizes the excess sugar in his circulating blood. When diabetes is present this secretion is not supplied and insulin is given as a substitute. It is injected under the skin by the patient one or more times daily, and when this is done the patient must use a measured diet. If he discontinues his injections the blood sugar again becomes excessive, and if he does not exclude sugar and most starches from his diet he is in danger of gangrene, coma, and death.

Q. Do prenatal impressions influence the unborn baby?

A. They do not. The baby's nervous system and his circulatory system are separate from his mother's and therefore birthmarks and personality and disposition possessed by the baby are due to other causes.

Q. I have heard that if the eruption of shingles should entirely surround the chest the patient will die.

A. Shingles (herpes zoster) is a painful disease of long duration, but it is never fatal. It is due to infection of the nerve roots just outside the spinal cord, and the infection is caused by a virus.

Blisters form only along the course of the nerves which are affected, and the nerves are quite painful. Since these nerves never meet in front it is impossible for the eruption to surround the chest.

Q. I have heard that premature baldness in men is caused by wearing hats.

A. The cause of premature baldness is not known. The tendency appears to be hereditary. The design of the baldness on the patient is usually similar to that of his male ancestors. Treatment is ineffective. Most men wear hats and most men are not prematurely bald. It would seem that your information is incorrect.

Q. Is cancer contagious?

A. It is not. No nurse, no doctor, and no attendant of cancer patients has ever been reported to have contracted the disease by attending such patients.

Q. My blood pressure has been high for 5 years. Is there any drug which will make it normal again?

A. There is no drug which will make your blood pressure normal again. Advice is given and also certain drugs in an effort to prevent a further rise in your blood pressure and to protect you from heart and brain complications. But there is no cure known for high blood pressure which has existed for 5 years.

Q. Is it proper to lie on the right side when preparing for sleep to keep from interfering with the heart?

A. You may lie on either side. Investigators have observed that during your night's sleep you turn your body 10 to 20 times. If you awaken in the same position in which you went to sleep, it is merely a coincidence. The heart lies near the center of the chest and only partly to the left, and the position in which you lie will not affect it.

(Continued on page 112)

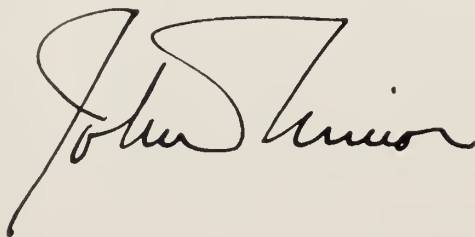
President's Page

IT BEHOOVES US . . .

The medical profession has recently been much concerned about the proposed plans for large Federal participation in the financing of medical care. There is an increasing amount of controversial writing on this subject in the medical and lay press. The recent decision of the House of Delegates of the American Medical Association to levy an assessment of \$25.00 for "the education of the public" has been the cause of considerable concern to many thoughtful and highminded doctors, who find it difficult to see the large sum which would be realized from this source as other than essentially a lobbying fund, comparable to the well known activities of big business, farm groups, etc.

Unfortunately a large proportion of the profession is poorly informed, both as to the AMA plan or campaign, and the trends and sociological implications of what is called "socialized medicine." It is most important that the profession acquaint itself with both sides of the problem, which are not, or at least should not be, mutually exclusive. Organized medicine has been intransigent in a changing situation where intransigence serves only to confuse the issue; and on the other hand, the most vocal proponents of Federal aid projects have often assumed a threatening and dominating tone.

It behooves us then, as doctors, to inform ourselves on these problems and to keep an open mind toward proposals which are—whether or not they be initially rightly planned—a part of the changing relationship of a profession, whose duty is to serve, to the world in which it serves. Similar changes are occurring in all fields of human endeavor. Certainly all members of the District Medical Society should read with care the excellent summaries prepared for us by our wise Executive Director which avoid the contentious attitude of much of the opposition to anything faintly suggesting "socialization."

A handwritten signature in cursive script, reading "John S. Union". The signature is written in dark ink and is positioned at the bottom right of the page.

Editorials

THE PUBLIC BE INFORMED*

It has been a long time since anyone in public life has been foolish enough to echo: "The public be damned!"

The medical profession, by practice and tradition, has always served the welfare of the public, individually and collectively, in its best judgment. The same prescription is not written by every doctor, however.

Even today not all medical practitioners agree that the more the patient knows about medicine the better it is for him, and for the civilization in which he lives. Perhaps it is sometimes medically good in individual cases for the patient to remain ignorant of his own condition, but that comes under the heading of treatment.

More basic knowledge of the methods and facts of medical science for the layman helps to make a healthy body politic. There can be little quarrel with that, at least not in these days.

The medical profession through its journals, societies and leaders has participated in the great endeavor of informing the lay public through press, radio, magazines and books. Nationally and locally it is now ethical for the physician to speak in public and be quoted in the press. It was not always so, even when he acted in the best interests of the profession and the public without the least tinge of self-advertisement.

Medicine's conquests of recent years—cures and preventives of diseases considered hopeless in earlier times—have thrilled the imagination of the public, as well they may. The accomplishments with some treatments and drugs have

far exceeded the most sanguine expectations. This has aided the continued rise of confidence on the part of the public in the effectiveness of modern medical practice.

It is important that there be a realization of the limitations of medicine. The layman must have a skeptical and discerning attitude. Otherwise he will fall prey to nostrums, quackery or old folk ideas, even as did his grandfathers and grandmothers.

Facts and details, as uncovered and unprettied as possible, will create a public that is medically informed and stronger and safer for that reason. Everyone is interested in what medicine cannot do, as well as its successes. To the youths who plan to become physicians, the opportunity to combat death and sickness is a great challenge and a great reward. To the creative medical researchers, the unconquered ills are opportunities. To the layman, ill or well, the personally poignant "failures" of medical treatment often cause better attention to medical advice, and, in many cases, are the incentive to financial support of medical institutions.

In a real sense the information upon which we base our daily actions comes to us from what we read and hear. The story we read in the newspaper or something that a friend tells us may mean the difference between life and death, if it gets us medical attention when we need it.

This alone would justify the attention that is being given both by the medical profession and by the press and radio to the reporting of medicine's progress.

To the writer as to the physician, justification for the practice of his profession is not needed.

* This is the thirtieth in a series of guest editorials by well known physicians and laymen.

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia.

Both are doing what they desire to do and are skilled in doing.

Informing the public is an essential part of maintaining the public and private health. Vigorous and organized campaigns to tell the facts, correct situations, and raise money play their parts, but more important is the consistent day-by-day telling what doctors are discovering

and doing and what they are reading in their journals and hearing at their meetings. This is a real part of medical practice as a profession. It is a function of the newspaper, the radio station, and the magazine. It is good treatment for the public.

WATSON DAVIS

Director, Science Service

POTASSIUM METABOLISM IN DIABETES MELLITUS

Potassium normally is present in plasma in relatively small amounts, not exceeding 4 or 5 milliequivalents. However, its concentration is considerably higher within the cells of the body where it is the principal and irreplaceable cation, serving to maintain the osmotic equilibrium of cellular and extracellular fluids.¹

Changes in concentration of potassium, as reflected in the extracellular fluid, are very poorly tolerated. An increase leads to serious effects on muscular and nervous activity and can cause death by depressing cardiac function.^{2,3,4,5} On the other hand, a decrease in potassium concentration also has an adverse influence on neuromuscular function, as exemplified in familial periodic paralysis. In this disease factors causing or favoring a reduction of the serum potassium level precipitate the episodes of paralysis.⁶ In addition to the depressant effect on voluntary muscle, lowering of the serum potassium level has a similar influence on the heart. It is interesting that deviation of the potassium concentration in either direction from normal interferes with function of cardiac and skeletal muscle, and the clinical pictures are similar.

Normally, excess of potassium, ingested as food or medication, is excreted rapidly enough by the kidney that there is no prolonged elevation of the serum potassium level, and there are no harmful effects.¹ For this very reason potassium salts are sometimes given in large doses for their diuretic action. On the other hand, in certain diseases the renal excretion of potassium

is impaired and toxic effects are observed. Notable examples of such derangement are advanced renal insufficiency and Addison's disease.⁸

Recently, attention has been focused on disorders of potassium metabolism in diabetic acidosis.⁷⁻¹² These are indeed remarkable, because in different phases of the same disease both hyperkalemia and hypokalemia can result. The implications of such changes are obvious from what has been said above.

In the course of development of diabetic acidosis several factors favor loss of large amounts of potassium in the urine. Primarily, depletion of glycogen stores, breakdown of tissue protein, and loss of sodium on account of ketonuria and polyuria influence the transfer of cellular potassium into the plasma. Excretion of large amounts of potassium in the urine naturally follows. During this phase, although the total body store of potassium is being depleted, the serum levels commonly are normal or even higher than normal. The observations of Martin and Wertman¹⁰ particularly confirm this fact. In other words, although the renal excretion of the mineral is rapid it does not usually exceed the rate of migration of potassium from cells to plasma. However, if the diabetic acidosis is severe and prolonged, the total loss of potassium from the body is great. If renal failure supervenes, as it may in very severe cases, the diminished output of urine is accompanied by progressive elevation of serum potassium levels.

With the institution of treatment of the aci-

dosis, the administration of large amounts of saline solution temporarily prolongs the excessive potassium excretion. At the same time relief of dehydration and use of insulin cause a return of potassium from plasma to cells, a process that appears to be enhanced when glucose also is given.⁹ The combination of these effects may result in a significant lowering of serum potassium values.

From an analysis of these facts it is logical to anticipate that there may be a serious aberration of potassium metabolism in any case of severe, prolonged diabetic acidosis. Early in the course of observation of such a case the serum potassium value will tend to be normal or higher than normal. As treatment progresses the value may fall to a level that is ominously low, although the diabetic acidosis is otherwise responding to treatment.

To date, clinicians have been impressed mainly with the dangers of hypopotassemia in diabetic acidosis. This is entirely proper since there has been no experience to suggest that the phase of hyperpotassemia is an intrinsic menace. However, realization of the fact that there is a period of hyperpotassemia is important as a deterrent to the policy of administering potassium salts indiscriminately to all patients with severe diabetic acidosis. Such a policy might occasionally cause death from hyperpotassemia. The danger would be especially great when renal function is impaired.

✱ The clinical recognition of significant alterations of serum potassium values in patients with

diabetic acidosis could best be obtained by frequent determinations of these values in the laboratory. Unfortunately, however, this is not practicable in most hospitals, and other methods must be employed. The idea of dangerous hypopotassemia should come to mind in any case of severe acidosis. In such a case, if the evidences of acidosis are disappearing with treatment and the patient nevertheless remains stuporous, shows poor muscle tone, and has rapid shallow respirations, it should be assumed that the serum potassium level is seriously lowered. In addition, the electrocardiogram may be a simple, valuable guide in diagnosis.^{4,11,13} During the phase of hyperpotassemia, the T waves become high and peaked, a change said to be most noticeable in the chest leads. Conversely, with hypopotassemia the T waves are abnormally low, returning to normal amplitude as the serum potassium level is restored.

The therapeutic suggestions to be derived from this discussion are apparent. Nothing special need be done when diabetic acidosis is attended by increased serum potassium levels, except to withhold potassium. When there is evidence of hypopotassemia, potassium chloride or potassium citrate by mouth or potassium chloride parenterally should be given, as recommended by Holler.⁷ It cannot be emphasized too strongly that, lacking proper controls, potassium salts should not be administered routinely in the treatment of diabetic acidosis.

H.H.H.

¹ Goodman, L., and Goodman, A.: *Pharmacological Basis of Therapeutics*. New York: Macmillan, 1941.

² Finch, C. A., Sawyer, C. G., and Flynn, J. M.: *Am. J. Med.*, 1946, **1**, 337.

³ Keith, N. M., Osterberg, A. E., and Burchell, H. B.: *Ann. Int. Med.*, 1942, **16**, 879.

⁴ Keith, N. M., Burchell, H. B., and Baggenstoss, A. H.: *Am. Heart J.*, 1944, **27**, 817.

⁵ Keith, N. M., and Osterberg, A. E.: *Proc. Staff Meet., Mayo Clin.*, 1946, **21**, 385.

⁶ Gass, H., Cherkasky, M., and Savitsky, N.: *Medicine*, 1948, **27**, 105.

⁷ Holler, J. W.: *J. A. M. A.*, 1946, **131**, 1186.

⁸ Joslin, E. P., and others: *New England J. Med.*, 1948, **238**, 437.

⁹ Logsdon, C. S., and McGavack, T. H.: *J. Clin. Endocrinol.*, 1948, **8**, 658.

¹⁰ Martin, H. E., and Wertman, M.: *J. Clin. Investigation*, 1947, **26**, 217.

¹¹ Martin, H. E., and Wertman, M.: *Am. Heart J.*, 1947, **34**, 646.

¹² Tuynman, P. E., and Wilhelm, S. K.: *Ann. Int. Med.*, 1948, **29**, 356.

¹³ Stewart, H. J., and Smith, J. J.: *Am. J. M. Sc.*, 1941, **201**, 177.

ELECTRONMICROSCOPIC VISUALIZATION OF BACTERIA*

The electron microscope is a modern device for obtaining optical images of objects particularly of submicroscopic dimensions. Illumination is by a beam of electrons focused by a system of electromagnetic lenses analogous to the glass lenses of the light microscope. Electron microscopy on the American continent is only about ten years old. The instrument has proven itself in this time extremely valuable in investigation of the causal agents of disease, in particular when used in parallel with longer known research instruments and procedures. The expense of the instrument and difficulties of its operation preclude its use by those outside of institutes. It may safely be predicted that the instrument will have an increasingly wide use in research institutes, however, and that the time is not far distant when the greater institutes devoted to diagnosis may find it useful in differentiating the agents of certain diseases such as those caused by the pox viruses and by pathogenic spirochetes.

The present lecture indicates some of the purely scientific contributions of electron microscopy. The structural details of pathogenic bacteria have been considerably clarified. Bacteria have been shown to be cells with a cell wall and inner protoplast contained in a definite protoplasmic membrane. Some light has been gained upon the organization within the protoplast, in which nuclear apparatus, various granules and vacuoles and even fine structure on a macro-molecular scale can be discerned. Spores and their germination have been observed as well as flagella and capsules.

Among special problems investigated have

been the morphologic changes resulting from the action of germicides, chemotherapeutic agents, antibiotics and antibodies. Antibodies have been demonstrated as forming deposits on the surfaces of flagella and of the cell walls of non-capsulated bacteria and as causing the characteristic swelling of the capsules of pneumococci.

The electron microscope has made a peculiarly valuable contribution to the study of the rickettsiae and viruses, which are near or beyond the limits of resolution of the light microscope. The rickettsiae, viruses of the lymphogranuloma-psittacosis group, and the pox viruses have been shown to have the structure of very simple cells equivalent to that of tiny bacteria. The cell wall and protoplast may be differentiated, and in vaccinia there has even been described what appears to be a nucleus. The influenza virus, which is quite invisible with the light microscope, has also apparently a surface membrane and inner protoplasm. The particles of bacteriophage, which are often considered as viruses parasitic upon bacteria, are usually tiny sperm-shaped particles containing a head of characteristic shape and a tail. The head is of complex structure in that it contains a characteristic pattern of granules. The contents of the head, moreover, may be released and leave an empty envelope with tail attached. The currently available evidence strongly suggests that the larger viruses, such as those of lymphogranuloma and psittacosis and of the pock diseases, multiply like bacteria by division, but that the most thoroughly studied bacteriophage particles are synthesized within the bacterial cell.

STUART MUDD, M.D.

*Professor of Bacteriology, University
of Pennsylvania School of Medicine*

* This is the condensation of an address delivered at the Nineteenth Annual Scientific Assembly of the Society, September 27, 1948.

In and Out of Focus

BY THE OBSERVER

Pointed Questions and Frank Answers

As was to be expected, there was considerable interest shown in the special business meeting of the Medical Society held on December 22, 1948. The announcement that Dr. George F. Lull, Secretary and General Manager of the American Medical Association, would speak on "The American Medical Association's Program" brought out a near-capacity audience. Everyone was aware that he would discuss the action of the AMA's House of Delegates in St. Louis in assessing Association members \$25 each for educational purposes. Objections had been raised by some Washington physicians to the assessment because the Association had failed to inform its members of the reasons for its action before it was taken and how the money was to be used. It was expected that following his address Dr. Lull would be closely questioned, which is just what happened. However, Dr. Lull took the barrage of questions in stride, sidestepping none of them. Whether they agreed with his views or not it was evident that his listeners were impressed by his forthrightness and evident sincerity.

At the business meeting which preceded Dr. Lull's address the procedure to be followed during the question period was discussed. Dr. Thomas E. Mattingly objected to limiting the proceedings to questions. He was sustained by members in attendance. The Chairman thereupon ruled that anyone who wished to speak would be heard. Dr. Mattingly outlined briefly his views on the course which the medical profession should pursue with respect to the provision of medical care.

Ninety-five written questions were put to Dr. Lull. These varied greatly in scope but most of them had to do with the assessment and the current medical issues. Unfortunately, no record was made of Dr. Lull's remarks, the oral questions directed to him, and his replies; how-

ever, the written questions were not destroyed and a review of them indicates the temper of at least some of the persons present. Your Observer's impression was that in spite of the critical tone of some of the questions a majority of those present were sympathetic with Dr. Lull's point of view.

In reëxamining the questions which were submitted, your Observer came across a few which might profitably be included in this column with the essence of Dr. Lull's replies and with added comments by your Observer. It is hoped that their publication will enlighten readers further on the subjects with which they deal.

Q. How will the assessment be enforced? Will there be any penalty for refusal to pay?

A. There were several such questions put to Dr. Lull. His answer was that there is no provision in the AMA By-laws which penalizes a member for refusal to pay an assessment. However, refusal to pay might be taken up by the Judicial Council which is empowered to discipline members.

Your Observer's guess is that no such steps will be taken. He is also of the opinion that a majority of physicians will pay the assessment.

Q. What part will the National Physicians' Committee play in this program? If it is active will the AMA turn the funds over to it?

A. Dr. Lull said NPC would undoubtedly continue its activities. He emphatically denied that the funds obtained through the assessment of members would be turned over to NPC.

Q. If the primary objective of the AMA is to further medical science why should the AMA attempt to solve the economics of medical care—really a basic economic problem?

A. Dr. Lull made the point that whoever controls the pursestrings in a medical care program will control medicine. It is therefore essential to the welfare of patients as well as the medical profession that all interested parties take an active interest in

medical economics. This obligation has been recognized by the AMA's House of Delegates and by state medical organizations throughout the country.

Q. Is the AMA absorbing the American Association of Physicians and Surgeons (AAPS)?

A. Dr. Lull's reply was "No." AAPS originated in Indiana. Its objectives are very much the same as those of the AMA except that the AAPS asks its members to agree not to participate in a program to which it is opposed. This has been interpreted by many to mean that it demands its members "strike" if such a contingency should arise.

Q. Are there voluntary plans to cover payment for office visits? Is not the cost of office and home care far greater than the cost of medical care in the hospital? What does the AMA advocate toward a program of payment for office care?

A. There are voluntary medical prepayment plans which cover office visits. Some are sponsored by medical societies, others by coöperatives, and some by clinics. Generally speaking, so-called full-coverage plans are costly. This is always the case when "unlimited" medical service, including home and office visits, is included. Medical service in the office and home is, of course, less costly than the same service in the hospital, because an illness which necessitates hospitalization is usually more serious. If hospital, nursing and other expenses are included, the costs are often more than the patient can afford to pay. These are the costs that the medical profession and other groups are endeavoring to make less burdensome by organizing prepayment plans.

In reply to the last part of the question, the AMA is on record in favor of medical service plans. It does not prescribe the limitations on service provided. However, it does insist upon evidence that they are sound if its approval is requested.

Q. Why does not the AMA call a national conference, as Federal Security Administrator Ewing did, inviting all groups, medical practitioners, public health officials, welfare workers, etc., to join in making a comprehensive study of the health needs?

A. As Dr. Lull pointed out, the AMA is on record in favor of state and local health councils, in which all groups of the population interested in health are represented. Many such councils are now active in various parts of the country.

In the District of Columbia there is what is known as the Washington Metropolitan Health Council, also the Hospital and Health Division of the Council of Social Agencies on which many civic and other community organizations interested in health are represented. In addition there is the Interprofessional Conference in which organizations engaged in the professional services of the District of Columbia participate. These groups consider and act upon various aspects of the health and professional problems of the community. They have many worthwhile projects in the health field to their credit.

Q. Is it not true that Federal officials are spending tax money to give the public their idea of how poor American medicine is without permission of the taxpayers?

A. Your Observer cannot recall Dr. Lull's reply to this question. To his knowledge no Federal official has publicly stated that American medicine is poor in the sense that the quality of the service rendered is inferior. On the contrary, there has been high praise of the medical profession on this score. An attempt has been made, however, to give the impression that most medical men who oppose compulsory health insurance are prompted by mercenary and selfish motives. This is an unjust and an unworthy effort to discredit sincere and honest men.

Some Government advocates of a particular health program have used facilities available to them in their official capacities to the fullest extent for propaganda. This is competition for public support which groups who do not have unlimited funds and channels for publicity find it difficult to meet.

Q. Couldn't the public be made aware of our point of view (that is, the medical profession's) by having each local medical society have "open nights" (lay meetings) for instruction?

A. There is no doubt in your Observer's mind that the position taken by the organized medical profession on social and economic problems related to medicine could have been much more adequately presented to the people. "Open nights" would undoubtedly be worth while although they would reach comparatively few people. Much more effective would be discussions of the current medical

situation by physicians with their patients. There is no substitute for the personal approach. The most effective medical public relations medium is the physician himself.

Q. Why is American medicine considered so inadequate that people are now asking for some sort of compulsory or less expensive and more adequate coverage?

A. In the opinion of your Observer the American people do not consider medicine in this country inadequate nor are they demanding compulsory health insurance. Some prominent public figures and a few physicians are, but they are not representative of the rank-and-file.

Naturally, people are concerned about costs, especially where hospitalization is involved. As previously stated, efforts are now being made to meet this situation through voluntary group hospitalization and medical prepayment plans.

Q. Why not work with the Administration toward obtaining financial aid for hospitals and medical schools, and combine this with voluntary health insurance, and perhaps compulsory health insurance to the very low-income group?

A. The AMA and its constituent associations might look with favor on such a program; whether it would be acceptable to the Administration is another matter. Federal funds have already been made available to hospitals and a considerable sum from the same source is finding its way to the medical schools. However, the needs in these fields are still not being met adequately.

Q. Will we try to educate the profession also as to the AMA's objectives?

A. As every medical society official knows, there is great need for a better informed membership. The disinterest of the average physician stems largely from his medical school days when he heard virtually nothing about medical organizations and the problems with which they are endeavoring to cope. Unfortunately, many medical schools still do not recognize the importance of presenting subjects other than those of a scientific nature.

The AMA recognizes the need for informing doctors at the "grass roots" in regard to its objectives and is now going about the task in a thorough manner.

Q. On what matter specifically does the public need education with regard to medical matters? What would the educational methods be?

A. Dr. Lull was not too specific when answering these questions. It would appear to your Observer, however, that every means would be adopted to enlighten the public in regard to the manner in which doctors function, what it would mean to them if changes proposed in medicine go into effect, and what constitutes good medical and hospital care. All mediums available should be used for this purpose—the speaker's platform, radio and the press.

Q. I should like to know what the AMA is doing constructively at present to decrease the cost of illness and medical care to patients, which may be presented to the public as an alternative to compulsory sickness insurance.

A. Although efforts are made to minimize their effectiveness, voluntary medical prepayment plans of the various types are making satisfactory progress. They reduce costs to patients and promise to offer more comprehensive coverage. Of course they have serious shortcomings, for they are still in the experimental stage. Sufficient time and experience are required to reveal their defects and permit their elimination. As a matter of fact, much has already been learned which will prove beneficial to the people they serve.

★

Canada Ahead

Although the United States is about two years ahead of Canada in its national hospital construction program, its northern neighbor has made greater headway in its plans for an over-all national health program.

"What Canada is doing is essentially what the National Health Assembly last May recommended should be done in the United States and what Oscar R. Ewing, Federal Security Administrator, recommends in his report to President Truman on national health goals for the next 10 years, with one important exception," writes Graham L. Davis, Director of Division of Hospitals, W. K. Kellogg Foundation, Battle Creek, Michigan, in the *Washington Post* for January 2, 1949. "Ewing," he observed, "recommends

national compulsory health insurance now; the National Health Assembly does not."

Canada, it appears, is not so sure that an insurance system is desirable, not in the near future anyway.

"After years of discussion and planning Canada decided in 1945 that a national health insurance program should be introduced. But when it came to working out the actual details, obstacles were evident that in some instances appeared almost insurmountable. Not the least of these was the shortage of physicians, dentists, nurses, technicians, dietitians and other health workers and of hospital beds, caused by depression, war and increased public demand for service.

"There is not much point in stimulating further demand with compulsory health insurance when existing demands cannot be met. Taxing the people for something that cannot be delivered does not make sense. Compulsory hospital insurance in Saskatchewan, with practically unlimited service benefits, doubled the demand for service in a year. How much of this increase is abuse or unnecessary and how much represents actual need is a debatable question.

"My impression, gained from conversations with Paul Martin, Minister of National Health and Welfare, and Dr. G. D. W. Cameron, Deputy Minister of National Health, and from participation in a recent three-day conference at Ottawa, is that Canada is not nearly as certain now as it was in 1945 that the compulsory health insurance proposals were the best answer to the problem of financial medical care. For this and other reasons, Canada in 1948 adopted a different approach."

The 1945 grants proposed for health planning and organization "were conditioned upon the provinces agreeing to adopt compulsory health insurance." In a statement to the House of Commons on May 14 of last year, Prime Minister Mackenzie King made it known that the 1948 health survey grants would not be conditioned upon this premise. "The purpose," he said, "is to assist the provinces in setting up the machinery which will be necessary to insure the most effective use of the other health plans now being proposed and in planning the extension of hospital accommodations and the proper organization of hospital and medical care insurance."

The sum of \$625,000 was granted for surveys and apportioned to nine provinces on the basis of population. These funds are to be used for

"a complete inventory of all health facilities and services—hospitals, medical care and public health." When the studies have been completed each province "will be in a position to determine its health needs and develop an intelligent plan to meet those needs."

Dr. Davis says that the provinces will undoubtedly favor "the principle of contributory health insurance" as "the basic method which should be employed to finance medical care including hospital service."

The Ministry of National Health and Welfare has obtained the services of Dr. Fred Jackson, Deputy Minister of Health of Manitoba, who will devote two years to health insurance studies.



Financial Plight of Medical Schools

Like most medical institutions, the medical schools of this country are in serious financial difficulties. Sources which heretofore could be relied upon to keep the schools out of the red no longer provide sufficient income. Where are the sorely needed funds to come from?

Dr. Walter A. Bloedorn, Dean of the George Washington University School of Medicine and Past President of the Association of American Medical Colleges, delivered an address at the annual meeting of the Association last November in which he said that "the fact that their future is threatened for the lack of a few million dollars to meet the annual cost of medical education, is shocking." Costs, he continued, run about 50 million dollars a year. But medical schools need approximately 16 million dollars more than they now have available and about 200 million dollars for long range capital developments, "if they are to maintain existing standards of medical education and keep pace with growing needs and opportunities for improvement."

Dr. Bloedorn said that basically there were three sources of income: tuition fees, private sources and public funds. The possibility of increasing the funds available from these sources had been studied by the Association's Committee

on Financial Aid. Questionnaires had been sent to all medical schools. Replies indicated everyone's concern over finances. However, there was a lack of unanimity as to the course which should be pursued to remedy the situation. Among the suggestions were that efforts should be made to obtain money from private philanthropy; that local fund-raising drives should be sponsored; that a national foundation should be established which would undertake a nation-wide fund-raising drive; that financial support of industry for medical research should be obtained; that fees for medical services rendered by faculties should be collected; that increased local and state tax support should be advocated; that there should be state and Federal fellowships or other aid for students; that higher tuition fees should be established and that Federal aid should be sought.

Dr. Bloedorn evaluated all of these suggestions but found no real hope in any but the last although he urged "vigorous" efforts to obtain funds from other sources.

"A realistic view", he said, "which points the way to one possible solution is to recognize the medical school as the key link in the Nation's public health structure. Without the medical school there cannot be a practicing physician. Without the practicing physician there cannot be public health. Thus, it becomes a matter of national concern regarding public health and welfare, even national defense, that the medical schools be adequately financed. If this principle is fully accepted, the appropriation of Federal funds to aid medical schools could be justified if it is necessary. Sixteen million dollars a year is a very small investment of the taxpayer's money in protecting his own health. It is true that many millions of dollars of public funds already are being spent for public health programs. There is abundant proof that these expenditures more than pay for themselves in reduction of illness, disability and death. Sixteen million dollars would represent a negligible additional amount to protect and enhance the Nation's already large and profitable investment in health. . . .

"There is a general feeling, as indicated by the answers to the questionnaire, that each medical school individually, and all the medical schools collectively, should vigorously pursue every possible course that might make the needed funds available before accepting Federal aid as the final solution to the problem. From the point of

view of medical education at its best, the prospect of Federal aid to medical schools is fraught with potential difficulties and dangers even though it could be justified as a proper expenditure of Federal funds. The medical schools are aware of these potential dangers, and this awareness was stressed in the answers to the questionnaire.

"No greater disaster could befall the medical school, not even financial collapse itself, than bureaucratic regimentation or political exploitation. The consequences of such a calamity are so well recognized that they could be prevented if adequate safeguards were written into any workable law providing for Federal aid to medical education. That Federal funds can be employed effectively in the interest of medical science, and thus to the benefit of all the people, without regimentation or outside interference, has already been established. As pointed out by a number of medical schools answering the questionnaire, examples have been set by the programs of grants of Federal funds for research in medical and allied fields. Applications for grants are passed on by groups of expert independent scientists. A system of Federal grants to aid the medical schools in defraying the cost of teaching medicine could be built upon an analogous pattern. An advisory council selected from the Nation's leaders in medical education could be created to consider applications of medical schools for Federal grants to aid in the teaching of medicine. Grants in aid recommended by such a council should be made, as so often stated by schools answering the questionnaire, 'with no strings attached.'

"The problem of financing medical education includes also the problem of financing the medical student. Under the GI bill of rights hundreds of young men and women are now enrolled in medical schools who could not possibly be there if it were not for the financial assistance they are receiving from the Federal Government.

"It will not be long, however, before the era of the GI medical student will have run its course. Will this mean that many potentially capable students of limited financial means will be unable to obtain a medical education?

"This again raises the question of Federal aid. Aid to the medical student has been proposed as one means of channeling funds into the medical schools. It has been suggested by some medical colleges that the tuition fees be raised so that they actually represent the full cost of training medical students, and that a substantial portion of such increased fees be paid to the medical schools on behalf of the students.

"The fact that the medical schools are in financial distress has become so well known, in some quarters at least, that means of alleviating that distress have been proposed. Even as we discuss the subject others proceed

to formulate legislation which would provide for Federal aid to medical schools. As you know, legislation was proposed at the last session of Congress to provide for grants and scholarships for medical education and also for dental, nursing and public health education. This legislation was introduced with little or no modification of various features to which objections had been made by the Executive Council of the Association of American Medical Colleges. There is every possibility that legislation vitally affecting the structure of medical education may be introduced at the next session of Congress. It is very important, therefore, that the medical colleges make known conditions under which Federal funds could be accepted with benefit to the public and to the schools themselves. Otherwise it is conceivable that well-intentioned legislation might be enacted with provisions which would seriously curtail the usefulness and utilization of such funds.

"If Federal aid is forthcoming the details should be decided only after careful study and consultation with medical educators. These details should conform to certain general principles regarding which the medical schools are in unanimous agreement."



I File It in Deep Six! Doctors, in common with nearly everyone else, receive entirely too much worthless reading matter in their mail. In fact, it has reached such proportions that many physicians do not even take the trouble to look at anything except obviously personal communications.

A few weeks ago a Washington physician, formerly a Naval medical officer, said, with considerable emphasis, "I file it in deep six," which, in service terminology, meant that he consigned it to his wastebasket. Periodically he sweeps his desk clean of all except first-class mail, dumps the whole business in the scrap receptacle, from which, of course, it is not resurrected.

This irritation with a flood of advertising material, appeals for funds, and so on, is understandable, and your Observer has reasons of his own for being sympathetic. Nevertheless, the indiscriminate dumping of mail has its objectionable aspects. For one thing, much of the information disseminated by medical societies goes for naught if the physician-recipient does not take the trouble to examine his mail carefully.

The result is aptly described in a communication written by Dr. Oscar B. Hunter of Washington to Dr. Frank D. Costenbader, President of Medical Service of the District of Columbia. Dr. Hunter wrote:

"The lack of interest and the dearth of knowledge of the average physician as to what is going on about him, particularly in his own affairs, is appalling. You would be surprised to know that many physicians do not know the difference between Group Health, Group Hospitalization, Health Security Administration, now Hospital Service Agency, and Medical Service, and what part these various organizations play in connection with the Medical Society of the District of Columbia."

"The difficulty is that most of the literature that is sent out is never read and finds its way into the waste basket, and some way should be found to dramatize or bring more forcibly to the attention of the physician the activities of the Society, and particularly such a vital activity as Medical Service."

There can be no doubt that the best means of informing physicians in regard to the urgent medical problems of the day is by personal contact. However, when an organization is as large as the District Medical Society, which now has some 1,600 members, it is obviously impossible. So the printed word must be relied upon.

Every effort has been made through the columns of the *MEDICAL ANNALS* and by communications or bulletins to bring to physicians of Washington various shades of opinion on controversial medical issues of the day so that they can come to an intelligent conclusion as to what should be done about them.

Some members have said that doctors will not read lengthy articles on economic subjects. Those which have appeared in the *MEDICAL ANNALS*, however, have usually been brief, and are often condensations of the original. The number who read them is not known but the editors have good reason to believe their number is considerable. Taking their cue from the *ANNALS'* editors, the officers of the Medical Society have also striven for brevity in communications, bulletins and reports. Obviously there is a limit to how brief these can be made; after all, the essential facts must be included.

Of course, there is little use in all of this if physicians consign their mail to "deep six" and if they cannot find time or because of disinterest fail to read what has been written. Responsibility for their lack of information under these circumstances must therefore rest with them.

The sole purpose of writing these lines is not to criticize but to emphasize again the importance of reading the mail from the Medical Society or at least examining it before consigning it to the waste basket. The physician should do this in his own interest, if for no other reason. What is happening at this moment is vital to the well-being of his patients and himself.



*Leaders
Urgently
Needed*

"I have often asked myself: Why have we so few good leaders? Is it possible to train leaders? Is it something which we can deliberately inspire and cultivate? Or is leadership something that is inborn in a few?"

These questions were asked by Dr. Karl A. Menninger when he addressed the graduating class of the University of Rochester Medical School last year. His answers were, like most of his utterances, thoughtful and stimulating.

In the course of his address Dr. Menninger commented at length on studies of primitive tribes made some years ago by a French anthropologist, Claude Levi-Strauss. The latter observed of their chiefs that they appear as "the cause of the group's willingness to aggregate rather than as a result of the need for central authority held by a group already constituted." "It is based," he said, "upon continued approval or consent."

One might suspect that authority which depends entirely upon continued approval or consent might be weak. How then is effective leadership maintained? By generosity—the chief must continually give food, tools, weapons, ornaments, etc., and be its chief entertainer, singer, dancer, ball player and general stimulator. "He is by far the hardest working man in the tribe," says Levi-Strauss. But he appar-

ently enjoys his role because "there are in any human group men who, unlike most of their companions, enjoy prestige for its own sake; feel a strong appeal to responsibility; and to whom the burden of public affairs brings its own reward. These individual differences are certainly emphasized by different cultures and to unequal degrees."

Dr. Menninger drew upon his war experience for other illustrations of effective leadership. He quotes a Colonel Marshall, a military observer (not further identified), who wrote that men "suddenly became leaders under certain situations of stress; sometimes they actually took the leadership away from their superior officers to the annoyance of the latter." Examples are cited to prove his point that the cause of military failure is primarily due to faulty leadership. He concludes with this statement by Lyantey, "In every society there is a leading class born for leadership and without which nothing can be accomplished."

These observations, said Dr. Menninger, should lead his listeners to think "in the direction of the function of a leader and the meaning of leadership in our society." He paid high tribute to medical educators and to the Dean of the University of Rochester Medical School, Dr. George Whipple, in particular.

"Doctors have traditionally assumed the responsibility of leadership almost without knowing it. The profession inherits this responsibility from centuries of social custom. Doctors have been given special privileges of education and they are afforded special privileges of social prestige and legal permission. Every doctor, therefore, has the obligation to assume that degree of leadership of which he is individually capable."

"For the world," he said, "is really very short of leaders—it is sick today of leaderlessness. Medical scientists, more than anyone else, should realize this, and should do their part to remedy it. The practice of medicine is not to be viewed as an opportunity to live well, to do great operations, to earn big money. It is an opportunity and obligation to work very hard, to make much self-denial, to give much, to assume much responsibility; in short, to be a leader."

T. W.

SPECIAL REPORT OF THE EXECUTIVE BOARD*

In this final report of the year your Board presents for your consideration matters which it believes should receive your immediate attention. These are set forth as briefly as possible so that this meeting will not be unnecessarily prolonged.

Proposed Amendments to the Society's Constitution and By-laws:—The following amendments must be acted upon at this meeting.

AMENDMENT XV

Section 1. Article I of Chapter II and Article V of Chapter II of the Constitution and By-laws are hereby repealed.

Section 2. The members of this Society shall be of six classes: active, life, associate, honorary, affiliate, and intern and resident.

Section 3. Associate members shall be doctors of medicine, citizens of the United States, eligible for active membership in the Society, who having offices outside its jurisdiction are active members of another constituent association of the American Medical Association; and doctors of medicine who are members of another constituent association of the American Medical Association, who are not eligible for active membership in the Society, but who are engaged in the practice of medicine in the Washington Metropolitan Area. They shall be elected in the same manner as active members; they shall have the privilege of attending and participating in the scientific sessions of the Society and shall receive its publications and notices of its scientific meetings; they shall be entitled to all the benefits of the Society but they shall not vote or hold office in the Society, shall be subject to its discipline, and pay such dues and assessments as may be imposed by the Society. Associate members, upon becoming eligible for active membership, shall make formal application for active membership. On failure to do so within three months, they shall cease to be associate members.

Section 4. Affiliate members shall be doctors of medicine who are not eligible for active or associate membership or scientists engaged in collateral lines of activity or research. They shall be elected in the same manner as active members; they shall have only the privilege of attending and participating in scientific sessions of the Society and shall receive its publications and notices of its scientific meetings; they shall not vote or hold office in the Society, shall be subject to its discipline, and pay such dues and assessments as may be imposed by the Society. Affiliate members upon becoming eligible for active or associate membership shall make formal application for such active or associate membership. On failure to do so within three months, they shall cease to be affiliate members.

Section 5. Intern or resident membership shall be limited to hospital interns or residents who are citizens of the United States, who earn less than \$2,400 per year, and who are not engaged in the private practice of medicine. They shall be

elected in the same manner as active members; they shall have the privilege of attending and participating in scientific sessions of the Society, and shall receive its publications and notices of its scientific meetings. They shall not vote or hold office in the Society, but shall be subject to its discipline. Intern or resident membership shall terminate when the income of the hospital intern or resident exceeds \$2,400 per year, or if he engages in the private practice of medicine, or upon the termination of his internship or residency.

AMENDMENT XVI

Section 1. Section 2 of Amendment X of the Constitution and By-laws is hereby repealed.

Section 2. Associate members, commencing January 1, 1949, shall pay \$25.00 annual dues.

Section 3. Affiliate members, commencing January 1, 1949, shall pay \$10.00 annual dues.

Section 4. Intern or resident members, commencing January 1, 1949, shall pay \$5.00 annual dues.

AMENDMENT XVII

Section 1. Article V of Chapter VI of the Constitution and By-laws is hereby repealed.

Section 2. The Delegate or Delegates and the Alternate or Alternates (who must have been Fellows of the Scientific Assembly of the American Medical Association for at least two years) shall be elected biennially at the annual business meeting to serve for two years. Where there is more than one Delegate or Alternate they shall be elected in alternate years. The Delegate or Delegates and Alternate or Alternates shall begin their terms of office on January 1 following their election. The Delegate or Alternate whose term of office expires during the year 1948 shall remain in office until his successor is elected and takes office.

AMENDMENT XVIII

Section 1. Article II of Chapter IX of the Constitution and By-laws is hereby amended by changing the name of Section 1 on Ophthalmology, Otology, Rhinology and Laryngology to the Section on Otolaryngology.

Section 2. Article II of Chapter IX of the Constitution and By-laws is hereby amended by adding thereto the following:

Section 10, on Dermatology and Syphilology.

Since copies were circulated among the membership, reactions to the first two of these amendments (XV and XVI) have not been too favorable. Several indicated they thought the requirements for Associate membership were unjust and some in this category stated that if the amendments were enacted they would resign.

At a meeting of the Board held on December 20, 1948, the above amendments were reconsidered and

* Adopted at a special Business Meeting of the Society, December 22, 1948.

the Board voted to recommend to the Society at this meeting that Amendments XV and XVI be rejected but that Amendments XVII and XVIII be adopted and their numbers changed to Amendments XV and XVI.

Your Board will introduce substitutes for original Amendments XV and XVI at a later business meeting. The Board is still of the opinion that there should be changes made in the Constitution and By-laws in relation to various classes of memberships. The status of physicians who have offices in the District of Columbia and in nearby suburbs situated either in Maryland or Virginia is especially in need of clarification. The Board trusts that its recommendation meets with the approval of the Society.

Honorary Membership Proposed for Dr. Leonard A. Scheele:—As our members know, Dr. Scheele is Surgeon General of the U. S. Public Health Service. In the past few years the Society has elected all of the Surgeons General to Honorary membership. Dr. Scheele, the newest addition to their ranks, is now being proposed.

Dr. Scheele is a worthy successor to Dr. Thomas Parran, now an Honorary member of the Society. He is a native of Fort Wayne, Indiana, having received his A.B. degree from the University of Michigan and his degree in medicine from Wayne University in Detroit. Commissioned in the U. S. Public Health Service in 1934, he held several field positions and in 1937 became a Special Fellow at the Memorial Hospital, New York, where he remained for two years.

In 1939 Dr. Scheele was placed in charge of the National Cancer Control Program of the National Cancer Institute. In this capacity he was concerned with studies in epidemiology of cancer, in end results of cancer treatment, and in liaison with the state and various medical organizations on cancer control.

He was transferred to Civilian Defense in 1942 and was assigned to the Army from 1943 to 1945, during which years he served in the Military Government and Allied Commission Medical Operations in Sicily, Italy and Germany.

Military decorations which he has received include the American Typhus Medal for his work in Northwest Europe during 1944 and 1945, the Legion of Merit for outstanding work in controlling communicable diseases in the European Theatre of Operations, the Order of Public Health from France, and several other foreign decorations.

In 1946 he returned to the National Cancer Institute as Assistant Chief and in July 1947 was appointed Assistant Surgeon of the USPHS and Director of the Cancer Institute as Assistant Chief.

Dr. Scheele is a distinguished member of his profession and worthy of recognition by our Society. Your Board, with the approval of the Board of Censors, takes great pleasure in recommending his election to Honorary membership.

Tumor Registry for the District of Columbia:—In a communication dated October 20, 1948, Dr. George C. Ruhland, District Health Officer, proposed the establishment of a tumor registry, or what he called a Cancer Record Registry for the District of Columbia. He observed that a registry of this kind was recognized as a basic element in cancer control work and in his opinion should be established immediately under the direction of the Health Department.

The fund which the Department now has available for the purpose of conducting such a registry is about \$18,000 annually. The estimated cost of the project for the first year of operation would be approximately \$35,000. The Health Department has petitioned the National Cancer Institute, Cancer Control Branch, to supplement the Department's funds to the extent of about \$17,000 for this purpose.

Dr. Harold Dorn, Chief Statistician of the National Cancer Institute, has taken the position that the proposed registry could not function successfully unless physicians and hospital superintendents in the District were "free from legal liability in disclosing to the Health Department their cases of cancer." To improve the chances of favorable action by the National Cancer Advisory Committee on the Department's request for funds, he thereupon urged that the Medical Society of the District of Columbia initiate action to the end that cancer be made a reportable disease by regulation of the District Commissioners.

Dr. Ruhland concurred in this suggestion and pointed out that cancer is now reportable by law in Idaho, Nevada, New York, Rhode Island and Wisconsin. It is reportable by regulation in Alabama, Arkansas, Colorado, Delaware, Florida, Georgia, Kansas, Kentucky, Louisiana, Mississippi, Montana, New Mexico, Oklahoma, Pennsylvania, South Carolina, Tennessee, Texas and Utah.

Dr. Ruhland's proposals came up for discussion at a meeting of the Society's Cancer Control Committee on October 22, 1948. The Committee voted unani-

mously to recommend to the Medical Society that cancer be made a reportable disease in the District of Columbia. This action was concurred in by the Executive Board at a meeting on November 1, 1948. The recommendation is now submitted to the Society for its approval.

The 1949 Interim Session of the American Medical Association:—At its meeting on July 26, 1948, your Board voted to extend an invitation to the American Medical Association to hold its 1951 Interim Session in Washington, D. C. The Greater National Capital Committee promised its coöperation and sent its representatives to talk the matter over with officials of the AMA.

It developed at the St. Louis meeting in December that AMA had concluded not to go to Tampa, Florida for its 1949 Interim Session. Consideration was therefore being given to another place in which to hold the 1949 Session.

Dr. George F. Lull, Secretary and General Manager of the AMA, who is speaking to you later tonight, is here to look into the desirability of holding the 1949 Session in Washington. He will explore the facilities available and if satisfactory the Society will undoubtedly enjoy the privilege of having a meeting of its parent organization in Washington next December.

The Present Medical Situation and the Society's Program:—It hardly need be said that turbulent months are ahead for physicians here and elsewhere throughout the country. As all of you know, the agitation for a change in medical practice has reached a high pitch. Legislative proposals will soon be before the Congress which will have a profound effect upon the manner in which medical care is provided.

Situated as our Society is in the Nation's Capital, where all these matters will be threshed out, our position will not at times be too pleasant. However, it is important that we keep our perspective and continue with the constructive program which we now have under way.

MEDICAL SERVICE OF THE DISTRICT OF COLUMBIA is making excellent progress. Nearly 100,000 Washington citizens are entitled to benefits under this plan. MEDICAL SERVICE is, of course, in its infancy and many administrative problems remain to be worked out. As time goes on and experience warrants, its benefits will be broadened, thereby increasing its usefulness to the community. MEDICAL BUREAU is a most important agency operated by the

Society in the interest of the public and the medical profession. The lay educational program is functioning very satisfactorily and every effort is being made to broadcast reliable health information. Other projects will soon be initiated for the improvement of the health of the people of Washington.

Our Society must continue to emphasize the positive approach to health problems of the District. Only by pursuing such a course can the medical profession retain the confidence of the community.

Conclusion:—The next business meeting of the Society will be held on the first Wednesday in March. At that time nominations for office for the next year will be made. Financial reports for the past year will also be submitted together with the budget for the current year.

Respectfully submitted,

WILLIAM M. BALLINGER, M.D., *Chairman*

WILLIAM EARL CLARK, M.D.

WILLIAM P. HERBST, JR., M.D.

RAYMOND T. HOLDEN, M.D.

JOHN MINOR, M.D.

COURSEN B. CONKLIN, M.D.

WALTER FREEMAN, M.D.

THEODORE WIPRUD, *Secretary*

MEETINGS

Wednesday, March 2

BUSINESS MEETING

Wednesday, March 9

SYMPOSIUM ON LIQUID AND ELECTROLYTE IMBALANCE IN ACUTE CIRCULATORY DISORDERS

HUGH H. HUSSEY, M.D., *Moderator*

Participants and their subjects will be:

Heart Failure—HUGH H. HUSSEY, M.D., F.A.C.P., Associate Professor of Clinical Medicine, Georgetown University School of Medicine

Renal Failure—WILLIAM L. HOWELL, M.D., F.A.C.P., Instructor in Clinical Medicine, Georgetown University School of Medicine

Dehydration and Shock—DONALD STUBBS, M.D., Clinical Professor of Anesthesiology, George Washington University School of Medicine

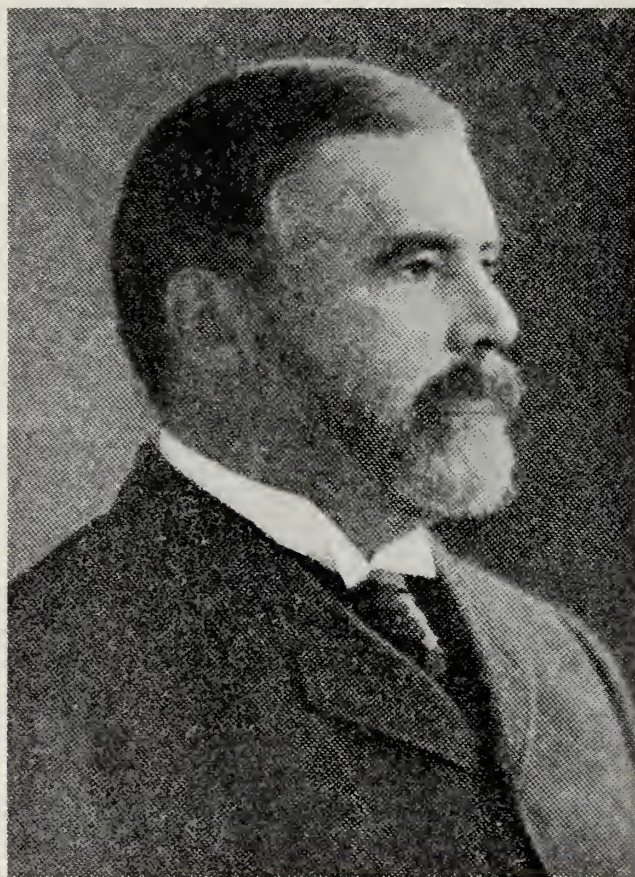
Alkalosis and Acidosis—HAROLD J. JEGHERS, M.D., F.A.C.P., Professor of Medicine and Director of the Department of Medicine, Georgetown University School of Medicine

Wednesday, March 23

HOUSE OFFICERS' NIGHT

The five best essays entered in the House Officers' Contest will be presented and prizes will be awarded.

Washington Physicians of Yesterday



XLIV. THOMAS NOTLEY McLAUGHLIN, M.D.

Popularity and personal merit won professional honors for Dr. Thomas Notley McLaughlin, and a warm place in the esteem of his colleagues.

Dr. McLaughlin was born August 15, 1860, in Washington, D. C. After graduating as M.D. from Columbian (now George Washington) University in 1882 he served for three years as a resident in the Philadelphia City Hospital. From 1887 until his sudden death, January 3, 1921, he engaged in the general practice of medicine in Washington. He was connected with Emergency and Children's Hospitals, and became a Trustee of George Washington University in 1918. He made contributions to the periodical medical literature. His wife was Fannie G. Irwin.

Joining the District of Columbia Medical Association in 1887, and the Medical Society in 1888, he played a notable part in the activities and the Executive and other committee service of these organizations; and was elected President of both bodies, of the Society for 1905, and of the Association 1909-10.

A noteworthy contribution to the public health of the District of Columbia stands to the credit of Dr. McLaughlin. In his Presidential Address of December 13, 1905, he dwelt in detail on the dangerous pollution of the waters of the Potomac River, which had become a matter of great local concern. This was an influential contribution to the current controversy over the method to be employed for the purification of the water supply. The plans advocated by the Medical Society were, to its great credit and pride, approved by Congress and carried out.

JOHN B. NICHOLS, M.D.

PUBLIC MEDICINE WRECKS PUBLIC HEALTH AND PURSE*

DOROTHY THOMPSON

Columnist

Public medicine—"free" medical care supported by a tax on payrolls—has been demanded by President Truman, appears in the proposed new budget, and is supported by humanitarians who recognize that many people who need medical care are unable to get it at a price they can afford. This column does not deny this, and later will propose some ameliorations.

But what must be emphasized is that the statement of a need never implies the remedy. The advocates of public medicine have failed to describe the problem and have rushed to that universal panacea for everything, "Let the Government do it," drawing entirely false analogies between the Government's capacity for success in one field and another.

It is argued: "We have free public education; why not free medicine?"

PROBLEMS DIFFER RADICALLY

But the problems are radically different. The school question can be collectively solved, while medical care, if not to be worthless, is a strictly individual problem, as diverse as there are human personalities.

In education, the state undertakes to give instruction to persons between certain ages, under a fixed curriculum of subjects and according to agreed-on standards. The number to be taught is statistically computable; the amount and duration of the effort are defined, and the cost, therefore, can be budgeted. Education is administered in classes and, according to the standards adopted, the number of teachers necessary also is statistically ascertainable. Nor are the students educated according to subjective standards of what each thinks.

None of these standards or computable needs is present in public medicine. It undertakes to furnish service to every citizen of any age who is sick, or who thinks he is sick. Possible diseases or phases of them are almost limitless and range from hypochondria

through thousands of organic disturbances to psychoneurosis.

In each person several afflictions may be combined and each symptom may arise from a score or more of causes. Almost no human being, over a certain age, is perfectly well. As a result of these facts, the experience of public medicine, in every single country where it has been adopted, is that doctors' offices and clinics are thronged with persons who are as well as their years justify, but whose demands can wreck the treasury.

No system of socialized medicine ever has been able to devise a budget. If Congress expects to cover costs by the proposed payroll tax, let this columnist predict that the costs will not be so covered.

The British system exhausted its annual funds within three months. None ever has been supported from earmarked funds. This, too, must occur from the nature of the situation.

COLLECTIVE PRESCRIPTIONS

Proper diagnosis is impossible. In England doctors ask, "How many persons here have headaches?"—and write a common prescription. But a headache may arise from a hangover, eyestrain, sinus trouble, psychic disturbances, brain tumor, or a myriad other causes. In collective medicine, headache patients all get barbiturates.

Public medicine is a bonanza for drug companies, optical firms, etc., for it always turns into medicine by prescription—collective prescription.

Public medicine runs into infinity. It is as impossible to compute the necessary number of doctors as of patients, and constantly mounting demands force a breakdown of medical standards, beginning with training.

Every good physician must undergo individual training. He cannot learn to tell one sort of heart tremor from another by listening to a classroom lecture. He must take a stethoscope in his own hands, listen himself, learn under individual guidance. There is no way of vastly increasing the number of competent doctors except by turning the present

(Continued on page 112)

* From Miss Thompson's column, "On the Record," which appeared in *The Evening Star*, Washington, January 20, 1949; reprinted by special permission of Dorothy Thompson and The Bell Syndicate, Inc.

News and Personals

The American Academy of Allergy, in coöperation with the University of Georgia, will sponsor an orientation course in allergy, March 7-11, at the University Medical School in Augusta, Georgia. The course will include lectures and clinical demonstrations on allergens, hay fever, bronchial asthma, allergic rhinitis, atopic dermatitis, and other significant manifestations in the field. Enrollment is open to anyone interested; the fee is \$50. Applications and inquiries should be addressed to the Executive Office of the Academy, 208 East Wisconsin Avenue, Milwaukee 2, Wisconsin.

The Philadelphia County Medical Society will hold its **13th Annual Postgraduate Institute** at the Bellevue-Stratford Hotel, Philadelphia, from April 5-8, 1949. Among the subjects to be covered in the symposia will be diseases of the circulatory system, common conditions in the oral cavity, diabetes, anterior poliomyelitis, blood dyscrasias, diseases of the kidney, industrial medicine and surgical problems, common obstetric problems, problems of infancy and childhood, diseases of eye, ear, nose and throat, gastrointestinal problems, and vaginal discharge (causes and treatment). The admission fee for the Institute is \$5.00. Further details may be secured by contacting Dr. Gilson Colby Engel, Director, South 21st Street, Philadelphia 3, Penna.

The United States Civil Service Commission announces that permanent appointments are available for physicians in the Panama Canal Medical Service. Medical officers accepted under the program will serve in outpatient treatment centers maintained by the Health Department of the Panama Canal in populous areas of the Canal Zone. All centers, whether large or small, are adequately staffed by graduate nurses and pharmacists. The applicant should be a graduate of an approved medical school; licensed to practice in a state; able to pass a standard physical examination; and shall have completed one-year internship in a hospital approved by the AMA. The salaries range from \$5,599 to \$7,794, with free

CALENDAR OF MEETINGS		
January 6	Section on Neurology and Psychiatry Executive Board of Woman's Auxiliary Diabetes Association of D. C.	
January 7	Committee on Postgraduate Education Diabetes Association of D. C.	
January 10	Committee on Public Policy Board of Trustees, Medical Service Washington Orthopedic Club	
January 11	Subcommittee on Tuberculosis District Dental Society Registered X-ray Technicians of Washington	
January 12	Scientific Meeting of Society Woman's Auxiliary	
January 13	Executive Board	
January 14	Committee for Health and Research	
January 17	Committee on Postgraduate Education	
January 18	Committee on Public Health D. C. Rheumatism Society D. C. Medical Technicians	
January 19	Washington Gynecological Society	
January 22	Washington Psychoanalytic Society	
January 25	House Committee Subcommittee on Mental Health Section on General Practice	
January 26	Scientific Meeting of Society	
January 27	Section on Anesthesiology	
January 28	Board of Censors	
January 31	Executive Board	

transportation to the Canal Zone provided for physicians, their families and household goods. A minimum of three years of post-internship experience is required for the higher-salaried positions.

The Montgomery County Medical Society will meet, March 15, at the Manor Country Club. Following dinner at 7:15 p.m., Dr. Robert J. Reeves, Professor of Radiology of Duke University, will give

the lecture, the subject of which is "Diagnostic Problems in Radiology." This subject will be further discussed by Dr. Eugene J. McDonald, Consultant in Radiology to the Veterans Administration, and by Dr. Aubrey O. Hampton, of the Warwick Clinic and Garfield Hospital.

The District of Columbia Postgraduate Clinic, sponsored by the **District Dental Society**, will be held at the Shoreham Hotel, March 13-16. Members of the District Medical Society are cordially invited to attend the meetings and view the exhibits.

The American Hearing Society again calls attention to the **Kenfield Memorial Fund** which provides a 1949 scholarship of \$100 to a prospective hard-of-hearing teacher of lip reading to hard-of-hearing adults, who lives in the United States, and who can meet the necessary requirements. The applicant must hold a bachelor's degree or its equivalent in specified training and experience. Applications must be filed between March 1 and May 1, 1949, with Miss Rose V. Feilbach, Teachers Committee, American Hearing Society, 817 14th Street, N. W., Washington 5, D. C.

A free vacation for two weeks at Camp Rapidan, in the mountains of Virginia, is offered to Washington physicians who are willing to provide medical service to the Boy Scouts.

The Boy Scouts acquired Camp Rapidan last summer and secured a \$50,000 gift to operate it over a four-year period. This is the fishing camp built by former President Herbert Hoover up in the mountains of Virginia along the headwaters of the Rapidan River. The Scouts will make available comfortable accommodations for a physician and his family during July and August in return for his personal services. The presence of a physician at the Camp is more in the nature of a safeguard than for any other reason, since the younger Scouts will not be at this Camp.

Interested physicians should contact Mr. Kenneth Spears, Boy Scouts of America, 400 6th Street, N. W., telephone National 7963.

The American College of Surgeons has issued its **list of approved hospitals for 1948**. The District of Columbia hospitals have been classified as follows:

Approved by the College for graduate training in surgery and/or a surgical specialty are Central Dispensary and Emergency, Freedmen's, Gallinger Municipal, Garfield Memorial, Georgetown and Providence.

Approved for training interns by the Council on Medical Education and Hospitals of the American Medical Association are Central Dispensary and Emergency, Doctors, Freedmen's, Gallinger, Garfield, Georgetown, George Washington, Providence, Saint Elizabeths, Sibley Memorial, and Washington Sanitarium and Hospital.

Approved for residencies or fellowships by the Council on Medical Education and Hospitals of the AMA are Central Dispensary and Emergency, Children's, Columbia Hospital for Women, Doctors, Eastern Dispensary and Casualty, Episcopal Eye, Ear and Throat, Freedmen's, Gallinger, Garfield, Georgetown, George Washington, Providence, Saint Elizabeths and Sibley.

Nine hospitals have been accredited as schools of nursing by the State Board of Nurse Examiners. They are Central Dispensary and Emergency, Freedmen's, Gallinger, Garfield, Georgetown, Providence, Saint Elizabeths, Sibley and Washington Sanitarium.

The cancer clinics at Episcopal Eye, Ear and Throat, Freedmen's, Garfield, Georgetown, George Washington and Providence Hospitals have been approved by the College.

The Washington Committee for Education on Alcoholism is now located at 2001 Kalorama Road, N. W., telephone Adams 8490. This office is affiliated with the National Committee for Education on Alcoholism.

The Executive Board, at its meeting, December 20, approved the appointment of the following members to the new **Subcommittee on Diabetes**: Dr. K. Hammond Mish, *Chairman*; Drs. Laurence J. Thomas, E. Clarence Rice, Lawrence A. Rapee and Louis K. Alpert.

A Medical Chapter of the Reserve Officers' Association has been established in the District of Columbia Department. Brigadier General E. A. Evans, National Executive Director of ROA, and Lt. Colonel Thomas H. King, President of the District of Columbia Department, officiated at the opening

of the new Chapter at a luncheon at the Army-Navy Club.

Charter members of the Medical Chapter are the following Reserve Officers: Commodore Don S. Knowlton, Colonel S. Ross Taggart, Colonel James B. Mason, Captain Raymond T. Holden, Lt. Colonel Luther Gray, Lt. Colonel F. Daniel Suttentfield, Major C. Lee Miller, Major Francis Threadgill, Lieutenant William K. Billingsley, Jr., and Captain Matthew Stroup.

Interim officers are Lt. Colonel Suttentfield, President, and Lieutenant Billingsley, Secretary-Treasurer.

The Chapter, at its first meeting, December 9, ruled that reserve officers in the medical branches of all services will be eligible for membership, in keeping with the unification policy of the armed forces. Promoting *esprit de corps* among reserve medical officers will be a primary objective of the Chapter.

The Clinical Society of the Diabetes Association of the District of Columbia, Inc. presented a Panel Discussion on Diabetes, January 6, in the Medical Society's auditorium in the manner of a "Stump the Experts" program.

Dr. John A. Reed, President of the District Diabetes Association, presided. Dr. Charles H. Best, co-discoverer of insulin and President of the American Diabetes Association, introduced members of the panel, a most distinguished group of guest physicians. They were:

Dr. Frank N. Allan, of the Lahey Clinic; Dr. George E. Anderson, Secretary of the American Diabetes Association; Dr. Joseph H. Barach, of the University of Pittsburgh; Drs. Joseph T. Beardwood and Edward S. Dillon, of the Graduate School of Medicine, University of Pennsylvania; Dr. Byron D. Bowen, of the University of Buffalo; Dr. Arthur R. Colwell, of Northwestern University; Dr. Frederick W. Hipwell, life-long friend of Banting and his clinical associate for many years; Dr. Blair Holcomb, of the University of Oregon; Dr. Henry J. John, of Lakeside Hospital, Cleveland; Dr. C. N. H. Long, Dean of Yale University School of Medicine; Dr. Herman O. Mosenthal, of the College of Physicians and Surgeons, Columbia University; Dr. Henry B. Mulholland, of the University of Virginia; Dr. William H. Olmsted, of Washington University (St. Louis); Dr. Lester S. Palmer, of Virginia Mason Hospital, Seattle; Dr. Franklin B. Peck, of the Medical Division of Eli Lilly Company, Indianapolis; Dr. Henry T. Ricketts, of the University of Chicago; Dr. Howard F. Root, of Harvard Medical School; Dr. Randall G. Sprague, of the Mayo Clinic, Rochester; Dr. Cecil Striker, of the Jewish

Hospital, Cincinnati; and Dr. Frederick W. Williams, President of the New York Diabetes Association.

A similar program was conducted for laymen, January 8. At this meeting Dr. Maurice Protas presided and Dr. Root, First Vice President of the American Diabetes Association, introduced the speakers.

The Section on Anesthesiology met in the Medical Society's auditorium, January 27. Drs. E. B. Macon and H. Davis Bruner, of the Department of Pharmacology, University of North Carolina, were present and spoke on "The Scientific Aspect of Endotracheal Tubes."

The Section on Neurology and Psychiatry held election of officers, January 6. The new incumbents are:

Dr. Harold Stevens, *Chairman*; Dr. Jonathan Williams, *Vice Chairman*; Dr. Zigmond M. Lebensohn, *Secretary-Treasurer*.

The George Washington University Medical Society held its regular meeting, January 15. The guest speaker was Commander M. N. Mason, Chief of Radiology of the National Naval Medical Center; his subject, "Isotopes and Their Clinical Significance as Indicated by Present Information." Comdr. Mason is in charge of the isotope program at the Center.

The Society will hold its **23rd Annual Banquet and Alumni Reunion** at the Mayflower Hotel, March 5. Dr. Herbert S. Gates is Chairman of the Committee on Arrangements for the banquet.

The Washington Ophthalmological Society has recently elected new officers. They are:

Dr. Jerome A. Sansoucy, *President*; Dr. J. Thomas Schnebly, *Vice President*; Dr. Thomas A. Egan, *Secretary-Treasurer*; Drs. Everett S. Caldemeyer and Edward J. Cummings, *members of the Executive Committee*.

The Washington Gynecological Society held a buffet supper and program, January 19, in the Medical Society's building. The guest speaker, Dr. Thaddeus L. Montgomery, discussed "The Family Physician, the Specialist and the Delay Period of Cancer Diagnostic."

The Clinico-Pathological Society met at the home of Dr. Crenshaw D. Briggs on January 18. Two case reports were presented by members of the Society: "Polyposis of the Colon," Dr. William Marbury; "Polycystic Kidneys," Dr. John H. Lyons.

The Prince Georges County Medical Society installed its new officers, January 4. They are:

Dr. Oscar Lavine, *President*; Dr. William Brainin, *Vice President*; Dr. Thomas A. Christensen, *Recording Secretary*; Dr. Aaron Deitz, *Corresponding Secretary*; Dr. Wolcott L. Ettienne, *Treasurer*.

Drs. Christensen and Deitz are Associate members of the District Medical Society.

Dr. A. Harry Finkelstein, Medical Director of the Eutawood Sanitorium, Baltimore, and Assistant Clinical Professor of Pediatrics at the University of Maryland, presented a scientific paper on "How to Clinically Recognize the Onset of Tuberculosis in Children and Latest Antibiotic Therapy." The

paper was discussed by Dr. Daniel L. Finucane, Medical Director of Glenn Dale Sanatorium.

Group Hospitalization, Inc. announces that hereafter persons past 65 years of age, even though jobless, may still continue to receive full benefits from membership in GHI if they were members before reaching that age. The new policy supersedes a former one which specified employment as a condition for those past 65 to get hospitalization benefits. The ruling will not be retroactive.

At the annual meeting in June of the **National Board of Medical Examiners** the following new members were elected to the Board: Dr. Russell L. Haden, Cleveland, who was nominated by the Council on Medical Education of the AMA; Dr. Paul B. Magnusson, Medical Director of the Veterans Administration; **Dr. Winfred Overholser**, Superintendent of St. Elizabeths Hospital and Professor of Psychiatry,

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. Most of these engagements were filled through the Society's Speakers Bureau, which is headed by Dr. James A. Gannon.

Date	Speaker	Subject or Title	Organization
December 1	Dr. Thomas R. Rees	"Evolution of the Eye in Animal Life"	Crestwood Citizens' Association
January 10	Dr. Hill Carter	"Common Colds"	Graphic Arts Association of Washington, D. C.
January 11	Dr. George C. Ruhland	"The Health Department Reorganization Plan"	Voteless D. C. League of Women Voters
January 19	Dr. Winfred Overholser	"Mental Health"	Business and Professional Women's Club of All Souls Unitarian Church
January 25	Dr. Isadore Rodis	"Building Emotional Health"	Parent-Teachers Association of Noyes School
February 1	Dr. S. Ross Taggart	"Venereal Disease Control in Washington"	Jewish Community Center
February 8	Dr. Morris Chase	"Babies Are Human Beings"	Parent-Teachers Association of Greenbelt
February 14	Dr. Malcolm C. McKaig	"Cancer"	Town Club
February 15	Dr. Walter Stokes	"Preparation for Marriage and Marriage Counseling"	Jewish Community Center
February 18	Dr. Herbert P. Ramsey	"The National Health Insurance Program"	Reciprocity Club

George Washington University School of Medicine; Dr. James V. Warren, Professor of Physiology, Emory University, Atlanta, Ga.; Dr. Hugh R. Leavell, Assistant Director of Harvard School of Public Health, Boston, and Dr. Eugene A. Gillis, of Washington, D. C., who succeeded Dr. Warren Draper as a second representative from the U. S. Public Health Service. The next annual meeting will be held at the time and place of the annual session of the AMA.

Dr. Walter Merrill, who has been in charge of the X-ray section at Glenn Dale Sanatorium, retired from the District Health Department on January 31. Dr. Merrill has been associated with the Health Department since 1918, first as a part-time physician at clinics and the Upshur Street tuberculosis hospital. When the tuberculosis hospital was moved to Glenn Dale in 1937, he became a full-time physician. He will be succeeded by Dr. Paul Roman of Baltimore.

Dr. Helen Gladys Kain has been appointed a member of the Council of the Southern Medical Association from the District of Columbia by Dr. Hamilton McKay, President-elect of the SMA, to take office following the November meeting. She will serve for five years, succeeding Dr. Arnold McNitt.

The General Inaugural Committee for 1949 included the names of Drs. Walter A. Bloedorn, Worth B. Daniels, Sterling Ruffin and Charles Stanley White. Appointed to the Medical Aid Committee for the Inaugural were the following: Dr. Ross T. McIntire, *Chairman*; Drs. Bloedorn, Robert J. Coffey, Paul F. Dickens, Herman A. Gross, William S. McCune, Charles G. McCormack, Leonard T. Peterson, William A. Morgan, the Reverend Paul A. McNally, S.J., and Lt. Colonel Howard A. Van-Auken.

Dr. Edward J. Stieglitz participated in the University of Chicago Round Table which was broadcast over WNBC, January 9. The program originated in New York, coinciding with the first scientific meeting of the Gerontological Society, January 8 and 9. The round table discussion was concerned with "Problems of Aging"; other participants were George Lawton, Ph.D., practicing psychologist in New York City, and Robert J. Havighurst, Ph.D., Professor of Sociology of the University of Chicago.

Dr. Stieglitz was also toastmaster at the dinner, January 8, of the Gerontological Society.

Dr. Paul S. Putzki was one of those honored at the Central High School Alumni Association's 41st Annual Reunion, January 6. Dr. Putzki, of the Class of 1911, is Chief of Surgery at Sibley Hospital, a Fellow of the American College of Surgeons, and a diplomate of the American Board of Surgery. He received a certificate for his contributions in the fields of medicine and surgery.

Dr. Joseph T. Roberts, in a letter to the editors, states that he is now Chief of the Medical Service of the Veterans Administration Hospital of Batavia, New York. He also serves as a Lecturer in Medicine at the University of Buffalo School of Medicine. Dr. Roberts, who was formerly Chief of Medicine at Gallinger Municipal Hospital, left Washington in December, 1947 to become Dean and Head of the Department of Medicine of the University of Arkansas School of Medicine.

Dr. Joseph S. Lawrence addressed a luncheon meeting, January 30, during the Conference of County Medical Society Officers, in the Claypool Hotel, Indianapolis. "What Medicine May Expect from the 81st Congress" was the subject of his address.

Dr. Eugene J. McDonald addressed the Washington Society of X-ray Technicians at its December meeting, which was held in the offices of Drs. Groover, Christie and Merritt.

Dr. A. B. C. Knudson has been appointed Chief of the Physical Medicine Rehabilitation Division, Department of Medicine and Surgery, Veterans Administration.

Dr. R. Lyman Sexton gave an illustrated lecture entitled, "The Pribilof Story of Alaska," at the annual meeting of the Columbia Historical Society, January 10.

Several members of the Medical Society have recently moved away from Washington.

Dr. Richard B. Phillips of Silver Spring, Md., has returned to active duty with the Naval Medical Corps. At present Captain Phillips is stationed at the Naval Air Station, Oakland, California.

Dr. Frederick H. Scharles, who is affiliated with the staff of the Kabat-Kaiser Institute of Oakland,

Calif., has joined the Alameda County (Calif.) Medical Society.

Dr. Gerald Wessler has moved to Jackson, Mississippi, where he is a member of the staff of the Veterans Administration Hospital.

Dr. Jeter C. Bradley now resides in Weaverville, North Carolina, and has become a member of the Buncombe County (N. C.) Medical Society. Dr. Bradley transferred his membership to Associate in the District Medical Society.

MEMBERSHIP

The following applicants for membership were duly elected to membership at the meeting of the Executive Board, December 20, 1948, in accord with Amendment XI, Section 2, of the Constitution and By-laws of the Society:

Active Members

Ernest H. Aschenbach, 4200 Argyle Terrace, N.W.
Joseph A. Bailey, 1835 Eye Street, N.W.
Robert Henry Barter, Gallinger Municipal Hospital
Lucian Bauman, 2601 16th Street, N.W.
Edward J. Beattie, Jr., George Washington University School of Medicine
Stanley L. Blumenthal, 2409 Reisterstown Road, Baltimore 17, Md.
Frederick B. Brandt, 5211 13th Street, N.W.
Robert L. Brickhouse, 2030 R Street, N.W.
Warren D. Brill, 1221 Missouri Avenue, N.W.
Pete Commings, Gallinger Municipal Hospital
Robert R. Cross, 8502 Jefferson Street, Bethesda, Md.
Robert E. duPrey, 1200 18th Street, N.W.
John McCallum Evans, 901 23rd Street, N.W.
Joseph F. Fazekas, Gallinger Municipal Hospital
Walter R. Gladding, 3500 14th Street, N.W.
Eugene S. Gladsden, 3403 R Street, N.W.
Winston C. Hall, 1150 Connecticut Avenue, N.W.
Thomas Lees Hartman, 1834 Eye Street, N.W.
Paul Heller, 4302 Third Street, S.E.
William Kurstin, 1354 Tewksbury Place, N.W.
Manuel P. Landman, 437 Seventh Street, S.W.
David Leibovici, 4200 13th Street, N.W.
Gordon R. MacDonald, 2032 16th Street, N.W.
Kenneth L. McCoy, Providence Hospital
Arthur Allen Morris, Jr., 915 19th Street, N.W.
Francis James Murray, 532 20th Street, N.W.
T. Douglas Noble, 1907 Eye Street, N.W.
Morris F. Oxman, 2901 16th Street, N.W.
Russel Smith Page, Jr., 12 Underwood Street, N.W.
Richard E. Palmer, 4217 12th Road, South, Arlington, Va.
Jean Ernest Paquin, 1648 35th Street, N.W.
Henry Rappaport, 2650 Wisconsin Avenue, N.W.
Jack Jacob Rheingold, 1601 Argonne Place, N.W.
James Henry Scully, 1835 Eye Street, N.W.

Hewitt Irving Varney, 1835 Eye Street, N.W.
James Willard Walker, 5000 Newport Avenue, N.W.
William B. Walsh, 1834 Connecticut Avenue, N.W.
Robert Orr Warthen, 3 West Everett Street, Kensington, Md.

Marcus Allen Weiner, 137 Avenue A, New York 3, N. Y.
Mary Julian White, Dupont Circle Building

Associate Member

Belden R. Reap, 2601 Elnora Street, Silver Spring, Md.

The following applicants for membership will be voted on at the meeting of the Executive Board, March 28, 1949:

For Active Membership

Allan B. Coleman, George Washington University—1943
Dan J. Feriozi, Duke University—1947
Richard H. Fischer, George Washington University—1943
Melvin Oscar Goodman, Rush Medical College—1937
Ermo P. Ingel, St. Louis University—1946
O. H. Jorgensen, University of Nebraska—1943
Walter H. Lane, Jr., George Washington University—1946
Seymour Lifschutz, George Washington University—1944
Frank J. Murphy, Georgetown University—1943
William C. Schaefer, University of Pittsburgh—1939
Clayton E. Wood, George Washington University—1945

For Associate Membership

Ernest E. Harmon, George Washington University—1947
Leslie N. Taubor, University of Budapest—1938

Recent changes in membership status:

Active to Associate

Jeter C. Bradley

Resigned

Active

Frederick H. Scharles
Gerald Wessler

Associate

Albert E. Pagan
Richard B. Phillips

Eight New Life Members

Chapter II, Article IV, of the Constitution of the Society, reads as follows:

Life members shall be active members who have been active members for a total of forty years. They shall have all of the privileges of active membership and shall be exempt from paying dues and assessments.

Our honor roll now numbers 86. The congratulations of the Society are extended to:

Seniority Number		Date of membership
463	James A. Gannon	January 28, 1908
464	S. Wren Howard	January 28, 1908
468	Huron W. Lawson	January 28, 1908
472	William Cabell Moore	January 28, 1908
478	R. Thomas West	January 28, 1908
480	S. Carl Henning	April 28, 1908
482	Zadoc Maurice Brady	April 28, 1908
494	Moses H. Darnall	October 7, 1908

who have for forty years been on the roster, meeting all dues and assessments and lending their support to the Society by frequent attendance. Their status is now elevated to Life membership.

CORRESPONDENCE

WASHINGTON, D. C., January 13, 1949

MR. THEODORE WIPRUD, SECRETARY
DISTRICT OF COLUMBIA MEDICAL SOCIETY
1718 M STREET, N.W.
WASHINGTON, D. C.

DEAR MR. WIPRUD:

Will you be kind enough to make the two following announcements in the *Medical Annals* as soon as convenient.

1. The Bureau of Cancer Control announces that a combination cover and binder, which will hold and preserve all of the issues of the *Cancer Bulletin* being distributed to private practitioners by that Bureau, can be obtained free of charge at the District Medical Society Building.

2. The Bureau of Cancer Control now has available the services of four nurses which may be used by any tumor clinic, hospital, or physician in the District for the purpose of follow-up work on cancer cases only. If the case fails to return for treatment or for follow-up examination, or in other ways lost to the physician or hospital's service, the Bureau of Cancer Control will send a nurse upon request to the patient's home to determine the cause or obtain any other information requested, such as, the present status in bedridden cases. These nurses cannot perform any nursing service, such as dressings or care to patient, but only investigation concerning follow-up of cancer cases. To obtain this service telephone the Director of the Nursing Bureau, Health Department, National 6000, Extension 2130, and state specifically what information is desired. A written report will be sent directly to the institution or physician

requesting the service and a copy of this report will be sent to the Bureau of Cancer Control in connection with the work of the cancer records registry.

Thanking you for your coöperation,

Sincerely yours,

JAY McLEAN, M.D.

Director, Bureau of Cancer Control,
District Health Department

WASHINGTON, D.C., December 27, 1948

MR. THEODORE WIPRUD, SECRETARY

THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA
1718 M STREET, N.W.
WASHINGTON, D. C.

DEAR TED:

Your letter advising me that forty years have passed since I joined the Medical Society of the District of Columbia was a shock although I was expecting it. It reminded me that I am no longer a youngster and it stirred other memories I have concerning the Society.

In 1908 we met at the Columbian Medical School on H Street in the large lecture hall. The older members thought it was not proper for those who were still "wet behind the ears" to express their opinions, and if they did, they were promptly put in their places. (This situation was responsible for the formation of the innumerable smaller medical societies which exist today. These provided forums where the younger men and women could exchange ideas without embarrassment.)

Nominations for officers were made from the floor and the yearly campaign for president was lively and added zest to the proceedings. Two men were selected to oppose each other months before the meeting and the method of selection was always a mystery. Each candidate had a manager who enlisted the services of ten or more captains. These polled the membership. The list of names in the telephone book was apportioned among the captains who made regular reports to the committee at the homes of the various members of the committee. These committee meetings were interesting and enjoyable. Many Virginia hams and pickles and high balls were demolished and a good time was had by all. The various pledges were reported and checked off and the captains returned to their work with renewed vigor. Election night was one of excitement and even in those days the pollsters were not infallible. Many of the solicited members promised their votes to both candidates and voted as they pleased. The election over, the opposing sides forgot their differences and peace again ruled until the following year when the entire process was repeated. It was a fine demonstration of democracy in action.

I remember that I was a candidate for president against Dr. Macatee and the election was held at the Columbian Medical School. I was young and did not take into consideration the fact that Dr. Macatee had been secretary for fifteen years and had shaken hands with all the members as they joined the Society. The campaign progressed, and at the final meeting of my committee, the captain's report indicated that I was going to win two to one. The election meeting was large and I remember my feeling of gratitude toward the many members who took the trouble to attend and vote for me. One of my backers was Dr. Prentiss Willson. He was appointed teller to keep count of the votes. In the excitement, he forgot to vote at all. This was no tragedy because when the votes were counted, the result was two to one—in Dr. Macatee's favor. This taught me not to be naïve.

Many years later, I ran for president again against Earl Clark and Walter Freeman. My vote was more respectable this time, but I lost by 19 ballots.

I had the privilege of being chairman of the Executive Committee for two terms and of serving on some committee during most of the time since I have been a member. These experiences have been worth while and interesting.

Members whose interest in the Society is passive often complain that the Society is run by cliques and that they have no voice in its conduct. The Society is run by members who are interested enough to take an active part in its proceedings, and these complaining members could be influential if they would attend meetings, read papers, indicate a desire to help by working on committees, and really be interested in the Society's welfare.

The Medical Society enjoys an important place in the community and it exerts a powerful influence for good. Its 1600 members should present a united front and continue to maintain its great reputation. The younger members must carry the torch!!

Sincerely,

JAMES A. GANNON, M.D.

BOOKS RECEIVED FOR REVIEW

Acknowledgment is made of the following books which have been received for review.

Blood Transfusion. ELMER L. DEGOWIN, M.D., Associate Professor of Internal Medicine, State University of Iowa; Director, Blood Transfusion Service, University Hospitals; Member of the Committee on Blood and Blood Derivatives, National Research Council; Member of the Advisory Board for Health Services, American National Red Cross; Secretary of the Sub-

committee on Blood Substitutes, National Research Council, 1940-45, ROBERT C. HARDIN, M.D., Assistant Professor of Internal Medicine, State University of Iowa; formerly Senior Consultant in Blood Transfusion and Shock in the European Theater of Operations, U. S. Army, and Commanding Officer of the ETO Blood Bank, AND JOHN B. ELSEVER, M.D., Senior Surgeon, U. S. Public Health Service; Chief, Professional Standards, Hospital Division, U.S.P.H.S.; Director of the Syracuse University Blood Transfusion Service, 1940-42; Technical Director of the Blood Plasma Section, Medical Division, U. S. Office of Civilian Defense, 1942-44; Director of the Civilian Blood Donor Service and Associate National Medical Director, The American National Red Cross, 1944-46. Price, \$9.00. Pp. 587, with 200 diagrammatic drawings. Philadelphia: Saunders, 1949.

Mayo Clinic Diet Manual. The Committee on Dietetics of the Mayo Clinic. Price, \$4.00. Pp. 329. Philadelphia: Saunders, 1949.

Clinical Aspects and Treatment of Surgical Infections. FRANK LAMONT MELENEY, M.D., F.A.C.S., Associate Professor of Clinical Surgery, College of Physicians and Surgeons, Columbia University; Associate Visiting Surgeon, Presbyterian Hospital, New York City, with a Foreword by ALLEN O. WHIPPLE, M.D. Price, \$12.00. Pp. 840, with 287 figures. Philadelphia: Saunders, 1949.

Obstetric Analgesia and Anesthesia—Their Effects upon Labor and the Child. FRANKLIN F. SNYDER, M.D., Associate Professor of Obstetrics and Associate Professor of Anatomy, Harvard Medical School. Price, \$6.50. Pp. 401, with 114 figures and 18 tables. Philadelphia: Saunders, 1949.

The Business Side of Medical Practice, 2nd ed. THEODORE WIPRUD, Executive Director and Secretary of the Medical Society of the District of Columbia and Managing Editor of the *Medical Annals of the District of Columbia*. Price, \$3.50. Pp. 232, with 22 figures. Philadelphia: Saunders, 1949.

Acknowledgment is also made of the following reference books:

Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1947 with the comments that have appeared in the *Journal*. Pp. 126. Chicago: American Medical Association, 1948.

New and Nonofficial Remedies Containing Descriptions of the Articles Which Stand Accepted by the Council on Pharmacy and Chemistry of the American Medical Association on June 15, 1948, issued under the direction and supervision of the Council on Pharmacy and Chemistry of the American Medical Association. Pp. 800. Philadelphia: Lippincott, 1948.

Veterans Administration Technical Bulletins, Series 10, 1946 and 1947, Washington 25, D. C.

**HUGH SMITH CUMMING, M.D.,
F.A.C.P., F.A.C.S.**

(1869-1948)

Dr. Hugh Smith Cumming, Surgeon General of the United States Public Health Service from 1920 to 1936, died December 20, 1948, at his home, 2219 California Street, N.W., after a year's illness. Dr. Cumming, who devoted a career to public medicine, was appointed Surgeon General by President Wilson during the last year of his administration and retained his office under five Presidents. He retired, February 1, 1936, and was succeeded by Dr. Thomas Parran.

Dr. Cumming was born in Hampton, Virginia, August 17, 1869, the son of Samuel and Diana Whiting Smith Cumming. He graduated in medicine from both the University of Virginia, Charlottesville, 1893, and the University College of Medicine, Richmond (now the Medical College of Virginia), 1894.

After interning at St. Luke's Hospital, Richmond, he joined the staff of the Public Health Service, then known as the U. S. Marine Hospital Service. For many years he traveled throughout the United States and the world. After directing quarantine work in San Francisco, he was sent to Japan in 1906 to guard against exportation of plague and cholera to the United States. In 1912, when pollution of tidal waters in the Chesapeake Bay was threatening destruction of the oyster beds in that area, he was assigned to this work, and his service gained recognition in both this country and abroad.

In 1920, the year he first took office as Surgeon General of the Public Health Service, he was elected Director of the Pan American Sanitary Bureau,

created by treaty in 1902 as the world's first international health organization. He held this office, concurrently with his other duties, until his retirement and election as Director Emeritus on February 1, 1947.

His administration was credited with completion of the quarantine system, inauguration of the pre-immigration examinations at American consulates abroad, establishment of a national leprosarium and national narcotic farms, and organization of the National Institute of Health on a research foundation basis. During his early tenure as head of the PHS he was in charge of medical care for World War I veterans. The system evolved by Dr. Cumming was retained when an independent agency was established to handle veterans' welfare.

His work in Japan and the Near East and his experience in attempting to contain such diseases as yellow fever and bubonic plague was culminated when, as head of the PHS, he was instrumental in promoting international sanitation treaties. He was one of the organizers of the Office International d'Hygiene Publique and represented it on the League of Nations committee for many years.

He held honorary degrees from the Medical College of Virginia, the University of Pennsylvania, and Yale University. For his distinguished services in the field of national and international health, he received a number of awards and citations, including the Hartley Gold Medal from the National Academy of Science, the Gorgas Medal and Prize from the Association of Military Surgeons of the United States, and the William Freeman Snow Award from the American Social Hygiene Association. During his career he was decorated by the governments of Peru, Ecuador, France, Chile, the Dominican Republic, Mexico, Cuba, Columbia and Poland.

In 1945, under the auspices of the International Medical Club, physicians and diplomats from the United States and Latin American countries gave Dr. Cumming a testimonial dinner for his work in the Sanitary Bureau. At this dinner he was awarded the Grand Cross of the Order of Finlay by a representative of the Cuban government.

He was President of the National Board of Medical Examiners from 1934 to 1936. He was an Honorary Fellow of the American College of Surgeons, the American College of Physicians, and the American

College of Dentists; member and past president of the American Public Health Association, Association of Military Surgeons of the United States, Southern Medical Association and the Gorgas Memorial Institute of Tropical and Preventive Medicine. He was a Fellow of the American Medical Association, a member of the American Hospital Association, the Medical Society of Virginia, the Royal Society of Medicine, London, Association of Military Surgeons of Mexico, the Canadian Public Health Association, the United States-Mexican Border Public Health Association, and the National Academies of Medicine of Mexico, Peru, and Dominican Republic.

He was an Associate member of the District Medical Society since 1925. He served from 1929 as a member of the Board of Visitors of Saint Elizabeths Hospital and was a member of the Board of Directors of Garfield Memorial Hospital. He was also a Phi Beta Kappa, and a member of the Cosmos, Chevy Chase and National Press Clubs.

In addition to his wife, Mrs. Lucy Booth Cumming, also a Virginian, whom he married in 1896, he leaves a son, Hugh S. Cumming, Jr., Counselor at the American Embassy in Stockholm, and a daughter, Mrs. Diana Cumming Kendrick, of Sheridan, Wyoming.

ROBERT CONRAD RUEDY, M.D.

(1876-1948)

Dr. Robert C. Ruedy, Life member of the District Medical Society, died suddenly, December 27, 1948, at his home, 621 Maryland Avenue, N.E., where he had lived since 1895. He had practiced medicine in Washington since 1904.

Dr. Ruedy was born in Riga, Michigan, July 12, 1876, the son of Kasper and Margaret M. Ruedy. He attended public schools in Petersburg, Virginia. He graduated in pharmacy from Columbian (now George Washington) University in 1895 and for four years was pharmacist at Garfield Memorial Hospital. He then turned to medicine and received his medical degree from George Washington University in 1904. In his early years of practice he was on the gynecologic staff at Casualty Hospital.

For the past 40 years, Dr. Ruedy was physician to the Presbyterian Home at 1818 Newton Street, N.W. During World War I he served as examining physician.

Dr. Ruedy was elected a member of the Medical Association of the District of Columbia in 1905 and of the Medical Society in 1906. He was a Fellow of the American Medical Association, an Associate of the American College of Physicians, and a member of the George Washington University Medical Society. He was always active in the work of the YMCA and held life membership in that organization. He was also a life member of the George Washington University Alumni Association, a member of the Swiss-American Historical Society, and a Mason.

Dr. Ruedy never married. He is survived by a brother and sister with whom he made his home, J. A. Ruedy and Mrs. Veronica Maria Trainham. Another brother, C. O. Ruedy, lives at Brookline, Mass.

CHARLES WALKER ALLEN, M.D.

(1879-1949)

Dr. Charles Walker Allen, Life member of the Medical Society of the District of Columbia, died January 17, 1949, at his home, 2424 Tunlaw Road, N.W., following a brief illness. He had only recently retired from practice because of ill health.

Dr. Allen was born in Amherst, Virginia, January 22, 1879, the son of Tinsley L. and Margaret Gilmer Allen. After graduating in 1902 from Jefferson Medical School, Philadelphia, he practiced for a short time in Atlantic City, New Jersey. He opened his practice in the District of Columbia in 1906, serving for a time as health inspector for the District. For a brief period before World War I he was a medical officer in the Marine Corps.

Upon his arrival in Washington to begin practice, Dr. Allen affiliated himself with both the Medical Association and the Medical Society of the District of Columbia, in 1907. He became a Life member of the Society, January 1, 1948. He was also a member of the American Medical Association.

Surviving are his wife, Mrs. Katherine Maus Allen, and three daughters, Mrs. William D. Davis of Mount Holly, Va., and the Misses Alicia G. and Helena H. Allen, who resided with him. He also leaves two brothers, William Kinckle Allen, of Amherst, and John Clarence Allen, of New Orleans, La.

**LOUIS BERNARD CASTELL, B.S.,
M.S., M.D.**

(1883-1948)

Dr. Louis B. Castell, an Active member of the Medical Society of the District of Columbia since 1920, died December 22, 1948, at his home, 4713 16th Road, North, Arlington, Va., following a long illness.

Dr. Castell was a native Washingtonian, born February 6, 1883. After attending Gonzaga High School, he studied at the National College of Pharmacy (later affiliated with George Washington University) and was awarded the degree of Doctor of Pharmacy in 1903. He continued his studies at Mount St. Joseph's College in Baltimore, receiving the degree of Bachelor of Science in 1906, and two years later, his Master of Science degree. He then enrolled in the Medical School of George Washington University, and graduated in 1912.

Dr. Castell had offices at 1835 Eye Street, N.W., until he was forced to retire because of ill health.

In addition to being a member of the District Medical Society, he was a Fellow of the American Medical Association and a member of the Clinical Club of Washington.

Surviving are his wife, Mrs. Louise Warthen Castell; a son, Dr. Richard B. Castell, who is a member of the District Medical Society; and two sisters, Mrs. Fred Boiseau, of Washington, and Mrs. R. L. Russell, of Weaverville, N. C.

GEORGE HENRY CROFTON, M.D., LL.B.

(1888-1949)

Dr. George H. Crofton, medical consultant at the Veterans Administration for thirty years, and an Active member of the District Medical Society, died unexpectedly, January 8, 1949, at his home, 1806 37th Street, N.W.

Dr. Crofton, a native of Taunton, Mass., was born, July 4, 1888. He received his high school education in Baltimore, Md. In 1914 he graduated from the College of Physicians and Surgeons of the University of Maryland. After interning at St. Francis Hospital, Hartford, Conn., 1914-15, he was resident

physician at Bridgewater State Hospital, Bridgewater, Mass., and Howard State Hospital, Howard, R. I., 1916-17, and Assistant Superintendent of Worcester City Hospital, Worcester, Mass., 1917-18. In 1928 he received the degree of LL.B. from Georgetown University Law School.

Dr. Crofton served during both World Wars. During World War I he went overseas as Battalion Surgeon with the 355th Infantry, and took part in the Meuse and Argonne campaigns. Upon his return he was appointed surgeon with the U. S. Public Health Service, which position he held from 1920 to 1924; from 1924 until 1944 he was a senior medical officer in the Veterans Administration. He accepted a commission as Major in the Army Medical Corps in 1944, but was assigned to the Veterans Administration, where he remained during his two-year term of duty.

Dr. Crofton was elected to Associate membership in the District Medical Society in 1926, and to Active membership in 1941. He was a Fellow of the American Medical Association. He was also affiliated with the American Legion, the Veterans of Foreign Wars, and the Knights of Columbus.

His wife, Mrs. Josephine Claffey Crofton, survives him, together with a daughter, Miss Mary Patricia Crofton. He also leaves a brother, Joseph M. Crofton, and five sisters, the Misses Mary E. and Gertrude M. Crofton, Mrs. John Sullivan, Mrs. Jeffrey O'Brien and Mrs. Arthur O'Connor, all of Fall River, Mass.

HARRY STACK SULLIVAN, M.D.

(1892-1949)

Dr. Harry Stack Sullivan, well known psychiatrist and former President of the Washington School of Psychiatry, died suddenly, January 14, 1949, at the Ritz Hotel in Paris. He was on his way home from Amsterdam, where he attended a Conference of the World Federation for Mental Health.

Dr. Sullivan was born in Norwich, New York, February 21, 1892. He graduated from the Chicago College of Medicine and Surgery in 1917 and later received psychiatric training at the Shepherd and Enoch Pratt Hospital, Towson, Md., subsequently serving as the Hospital's Director of Clinical Research for five years.

He came to Washington about 19 years ago and served as President and Director of the Washington School of Psychiatry from 1936 to 1947. From 1930 to 1939 he maintained a private practice in New York in addition to his duties at the Washington School of Psychiatry. At the time of his death he was Chairman of the Council of Fellows of the School. He was one of the leaders in a movement to combine efforts of psychiatrists and social scientists. He also was an active proponent of interchange of thought among leading international social scientists.

During the last War, Dr. Sullivan was psychiatric consultant to the Selective Service Director, Major General Lewis B. Hershey. He also was consultant to the President's Advisory Committee on Selective Service.

Dr. Sullivan was appointed last summer to represent the United States at several international conferences on mental health.

One of the founders, and a charter member of the William Alanson White Psychiatric Foundation, he was editor of the Foundation's quarterly magazine, *Psychiatry*; he was Associate Editor of the *American Journal of Psychiatry* from 1924 to 1939. He also published a book, "Conceptions of Modern Psychiatry," in 1947.

Dr. Sullivan was unmarried. He is survived by an adopted son, James Sullivan, with whom he made his home at 9003 Bradley Boulevard, Bethesda, Md.

MILTON HUGHES CHRISTIE, M.D.

(1859-1949)

Dr. Milton Hughes Christie, retired physician, died January 9, 1949, at the home of his son, Dr. Arthur C. Christie, at Unity, Maryland, after a long illness. He was 90 years old.

Dr. Christie, who practiced for many years in Corry, Pennsylvania, retired about 27 years ago, and came to Washington to make his home with his son. He was born in West Sunbury, Pa., and received his medical degree from Western Reserve University, Cleveland, Ohio.

He was a member of the Masonic Commandery in Corry, Pa.

His wife, Mrs. Harriet Christie, died 31 years ago. In addition to Dr. Christie, with whom he lived, he is survived by two other sons, Dr. L. M.

Christie, of Silver Spring, a Washington dentist, and C. L. Christie, of Arlington, Va.

Good Medical Service—Galdston

(Continued from page 63)

of accelerated living and increased responsibility; that modern medical science, to phrase it crudely, has in a large measure "exchanged mortality for morbidity"; and finally, that modern medical science falls far short of what should be its primary goal, the promotion of robust and enthusiastic living, physically, emotionally, socially, and in other ways, too.

We come back then to the query, "What then?" If comprehensive medicine be a desideratum, if it does promise good medical service, and yet both the time and its thinking be averse to it, what then? Here we may have recourse to history for the answer. And history teaches this, if aught, that "the journalist is always wrong." The agitations of the day seldom and hardly reflect the travail of the times. Just now the agitations of the day center about "who pays how much" for medical care. These agitations are "wide of the mark." For the basic and essential problem is not "who pays" but what kind of medical service will be rendered. If it be in the order of curative medicine, it is hopeless and can lead only to economic and professional bankruptcy. If it be in the order of comprehensive medicine, then there is hope. But how shall the latter be effected? Here I must confess my deepest pessimism. I am not persuaded that our society can be influenced to make the right choice by any other force than the disastrous effects which follow from the wrong choice. Yet, despite my pessimism, I hold to the Promethian prerogative to defy the gods of destiny, and I invite you, with no other reward in the offing but that your liver might be devoured, to do likewise. I invite you to give your own thought, and your devotion if you are persuaded, to a revaluation of the trends and achievements of modern curative medicine and

to the advancement of what I have termed comprehensive medicine, for in that, as I have tried to show, lies the answer to the query, "What is good medical service?"

Medical Misconceptions—Gannon

(Continued from page 82)

Q. *Is it wise to take strenuous exercise after 40?*

A. No, exercise after 40 should be curtailed. Many lives have been shortened by persons after 40 who do not act their ages. It was a wise man who said that his exercise after 40 was confined to acting as pallbearer at the funerals of his athletic friends.

Q. *I have heard that if I do not pay my doctor's bill in full, I will not need him while my name is on his books.*

A. This superstition is too widespread and I can neither endorse it nor refute it. But I do know that if many of my patients would pay me that last five or ten dollars, I could face my butcher with more equanimity!

Public Medicine Wrecks Health and Purse—Thompson

(Continued from page 99)

ones to teaching—doing, meanwhile, without medical service.

A famous New Zealand physician, recently in Canada, stated in a public interview: "Public medicine in New Zealand is a disaster. It is turning our people into a race of hypochondriacs."

It also is breaking the public bank.

The American Congress has not even begun to think what public medicine will do to the public purse and public health. When and if it does, it will find another way to meet real needs.

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THE EFFECT OF TETRAETHYLAMMONIUM CHLORIDE ON PERIPHERAL BLOOD FLOW

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THE treatment of impaired arterial circulation of the extremities is directed toward increasing the volume of blood flow to the affected parts. The peripheral blood flow is controlled by the sympathetic nervous system. Stimulation of the sympathetics causes constriction of the peripheral vessels and depression or blockage produces vasodilatation. The sympathetics supplying the vessels of the extremities can be easily interrupted by surgical removal of the proper ganglia. There has not as yet been discovered any comparable nonsurgical method of interrupting the sympathetic pathways. Acheson and Moe¹ in 1946 demonstrated that the fall in blood pressure caused by tetraethylammonium bromide was due to the blockade of the autonomic ganglia. Lyons and his co-workers² found that tetraethylammonium

bromide could be safely administered to man in dosage adequate to produce sympathetic blockade. Since this report there has appeared a number of articles showing some good effects from the use of this drug in peripheral vascular disorders. Berry et al³ found in a study of a large number of patients that tetraethylammonium chloride produced blockade of the autonomic ganglia to a degree comparable to the usually accepted methods of producing a sympathetic block. This conclusion was based on skin temperature and plethysmographic reactions. Our clinical experiences with tetraethylammonium chloride in vasospastic diseases and acute femoro-iliac thrombophlebitis has fallen far short of expectations when compared with the results of novocaine block of the sympathetic ganglia in the same diseases. If signs of vasodil-

atation and an increase in the peripheral blood flow became evident they were transient. The side-effects from the drug seemed to outweigh any good effects. These observations led us to make further investigations on the effect of tetraethylammonium chloride on the peripheral blood flow.

There are several methods commonly employed in determining changes in blood flow in the extremities. Plethysmographic studies and skin temperature determinations can both be applied clinically. The first of these methods requires expensive apparatus and a certain degree of technical skill. If properly used the results seem reliable. Skin temperature recordings are easily made. The apparatus is not expensive and it requires little skill. However, there is one serious pitfall in the interpretations of skin temperature readings. The duration of elevation of the skin temperature resulting from increased blood flow does not always mean a consistently increased flow of blood to the extremity. Once the skin temperature is elevated it requires some time for it to cool off. The blood flow may be materially reduced before the temperature changes are noticeable. Another method which we have found to be reliable and which can be applied to patients as well as laboratory animals will be described below. It is based on the determination of changes in the venous pressure in an obstructed vein.

When a major vein of the extremities is obstructed the intravenous pressure distal to the point of obstruction rises. The degree of elevation depends upon the amount of increased volume of venous blood held in the obstructed area. The local venous pressure remains elevated as long as the amount of arterial inflow and venous outflow remains constant. Any amount of increased arterial inflow is reflected in the venous volume and there is an immediate rise in the venous pressure. When arterial flow is diminished as by compression of a main artery, vasospasm, elevation of the limb, and in shock, the pressure in the obstructed veins promptly falls.

In a study of venous pressure changes in acute obstruction of the major veins of the extremities it has been shown that immediately following sympathetic nerve block of the involved extremity there is a prompt rise in the local venous pressure. This pressure remains elevated as long as the effect of the block persists. This also holds true in chronic stages of venous obstruction (fig. 1, experiments A and B).

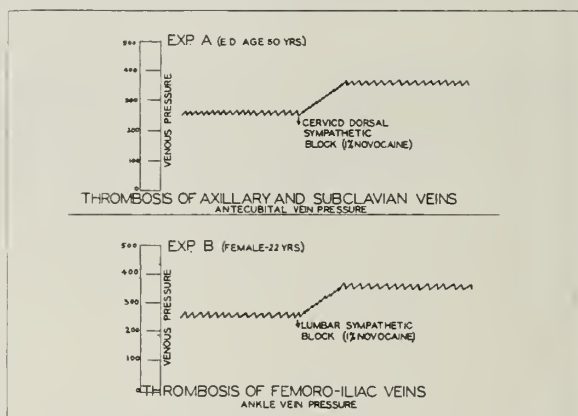


FIG. 1. Venous pressure readings in thrombosis of major veins of the upper and lower extremities. Note the elevation of the venous pressure following sympathetic block (novocaine 1 per cent).

The increase of the intravenous pressure in obstructed veins is actually a gauge of the volume blood flow in that extremity, and since the pressure is measured in millimeters of water it becomes a very sensitive test. In applying this principle for the present study we have used the following technic.

METHOD

Dogs weighing 30 to 35 pounds were anesthetized with morphine and nembutal. Heparin was administered in sufficient amounts to delay blood clotting during the period of study. The femoral vein in one or both legs was exposed and a cannula was inserted in the femoral vein just distal to the profunda branch. The cannula was then connected to a standard venous pressure manometer filled with heparinized normal saline solution. The apparatus was adjusted at the proper position and fixed to a stationary

stand so that all readings were standardized. The initial intravenous pressure was recorded. Then a series of experiments were performed to determine the degree of rise in the local pressure when the major veins of that extremity were ligated at various levels, i.e., femoral distal to profunda, above profunda and saphenous, external iliac, common iliac and finally the vena cava. In some, ligatures were placed at several levels. We found that immediately following occlusion of the vein the intravenous pressure began to rise and reached a peak within 1 minute. The pressure would then remain at that level with slight fluctuations upward and downward during the respiratory cycle. There was no significant change during 30-minute periods of observation. The maintenance of the pressure for this period showed that collateral pathways are not established so promptly as to interfere with the experiments. There was some variation in the height of the local venous pressure when identical ligations were performed in different animals. However, there was close correlation between the right and left extremities in the same animal. In general, ligation of the femoral below the profunda caused less elevation of pressure than when this vein was occluded at a higher level. Ligation of the vena cava caused less elevation than when the femoral only was ligated.

The next step undertaken was the determination of the effects of interruption of the sympathetic pathways to the extremities upon the volume blood flow as shown by the pressure changes in the obstructed veins. The systemic blood pressure was not materially changed by these operations. As had been demonstrated in patients with occlusion of the major veins, sympathectomy or local sympathetic nerve block caused an increase in venous pressure of the obstructed veins (fig. 2, experiment C). Furthermore, the elevated pressure remained stationary during the entire period of study, which often was extended to more than 30 minutes. These findings proved that vasodilatation resulting from "local" sympathetic nerve

interruption increased the volume blood flow to the limb and that the amount of increased volume was reflected in the degree of elevation of the venous pressure.

Using the same technic, we tested the effect of tetraethylammonium chloride on the blood volume flow in the extremities. Etamon, a solution containing 100 milligrams of tetraethylammonium chloride per c.c. was used in all of the experiments.

After the pressure in the obstructed veins had become stabilized and recorded varying doses of tetraethylammonium chloride were administered intravenously. In 8 dogs the dose was 7 mg. per kilogram of body weight. In 5 of these there was an immediate rise in venous pressure. The average rise was 275 mm. of water. The elevated pressure was sustained

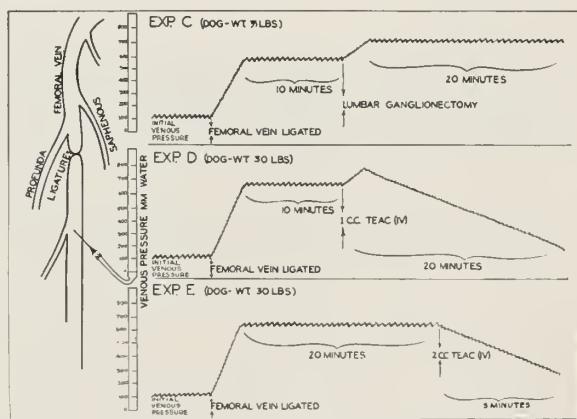


FIG. 2. Venous pressure changes in obstructed femoral vein. Experiment C shows elevation following lumbar ganglionectomy. Experiments D and E show typical curves following administration of tetraethylammonium chloride (TEAC).

from 10 to 20 minutes in 3, and in the other 2 less than 5 minutes. At the end of 20 minutes all showed a decline below the original level. In 3 dogs there was a prompt fall in the venous pressure to a point less than one half of the original level (fig. 2, experiments D and E).

In 10 dogs the dose of tetraethylammonium chloride was increased to 14 mg. per kilogram, and in all of these there was a prompt fall in the venous pressure. The average decline was

460 mm. at the end of 5 minutes. When the period of observation was continued 20 minutes or longer the average fall was 500 mm. water.

To determine the cause of the falling local venous pressure in the obstructed venous bed we made a series of simultaneous determinations of arterial blood pressure and venous pressure (fig. 3, experiments F and G). The arterial

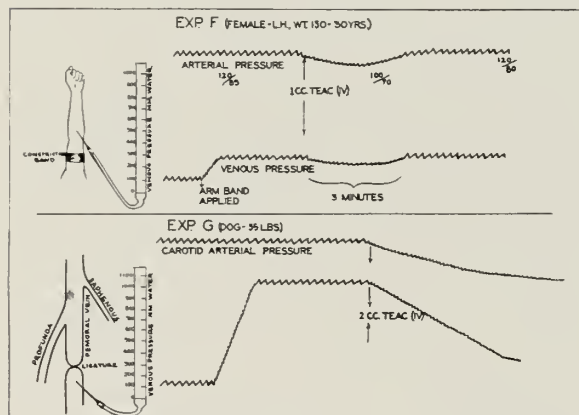


FIG. 3. Correlation of fall in arterial pressure with declining venous pressure in obstructed veins following injection of tetraethylammonium chloride (TEAC).

pressure was measured in the carotid artery and recorded on kymographic tracings. This was done in 7 dogs. In all a dose of 200 mg. of tetraethylammonium chloride was given, and in all the responses were the same. There was a prompt fall in blood pressure, and an even more rapid decline in venous pressure. The duration of the low pressure varied considerably, but at no time did the arterial pressure rise above the normal nor did the venous pressure ever reach the original level. In some the pressures reached the shock level and remained there for more than 1 hour. After this period the experiments were terminated.

In order to show that an increase in arterial inflow would produce an elevation of the venous pressure in the obstructed venous circuit after administration of tetraethylammonium chloride we performed the following procedure on 2 dogs. The usual setup was prepared, the femoral vein ligated below the profunda branch, and the fem-

oral artery clamped at the same level. The venous pressure in the obstructed vein was recorded. In the first animal the pressure became stabilized at 610 mm. of water. After 5 minutes the artery was released and the pressure rapidly climbed to 1,640 mm. of water and settled at that level. Five minutes later 100 mg. of tetraethylammonium chloride was given, and the venous pressure began to fall rapidly and reached the original level within 5 minutes (fig. 4, experiment H).

The same procedure was started in the second dog, but the tetraethylammonium chloride was given before release of the artery. There was a rise of venous pressure from 600 mm. to 700 mm., but it declined to 480 mm. within 10 minutes. At this point the artery was released. The venous pressure shot up to 1,150 mm. In 10 minutes it had again declined to the original level (fig. 4, experiment I).

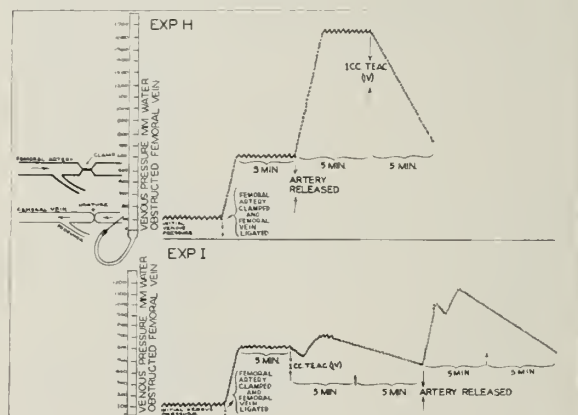


FIG. 4. Reaction of venous pressure following release of clamped artery. Experiment H before administration of tetraethylammonium chloride; experiment I after tetraethylammonium chloride (TEAC).

It was also found that when the fall in arterial pressure following tetraethylammonium chloride was checked with adrenalin there was a constant rise in venous pressure and that it tended to remain elevated as long as the arterial pressure remained up. When the arterial pressure declined, a fall in venous pressure followed (fig. 5).

In applying this method of study to patients

the following technic was used. A band was placed about the arm constricting the veins sufficiently to raise the venous pressure to a level between 250 and 300 mm. of water. The arterial pressure was recorded for the opposite arm. The venous pressure in the obstructed arm was determined, and a suitable dose of tetraethylammonium chloride was given in-

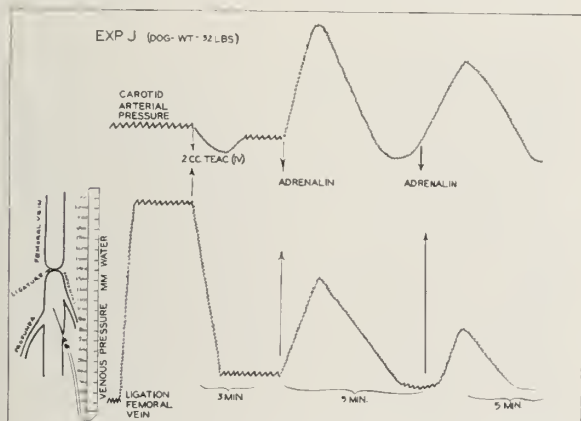


FIG. 5. Reaction of lower arterial and venous pressures to adrenalin after injection of tetraethylammonium chloride (TEAC).

travenously (fig. 3, experiment F). Here again we found that the fall in arterial pressure was followed by a prompt decline in venous pressure. When the arterial pressure became elevated the venous pressure followed.

The above experiments indicate that when tetraethylammonium chloride is administered in sufficient dosage to cause a fall in arterial pressure there is also a reduction in the volume blood flow in the extremities. This is confirmed when the same results are demonstrated in a sympathectomized patient, as in the following case.

V. B., a woman aged 40 who weighed 120 lbs., was admitted to the Emergency Hospital with severe vasospasm of the lower extremities. A left lumbar sympathectomy was performed and excellent results obtained. Six days following the operation plethysmographic tracings from the toes of the sympathectomized limb showed a great increase in volume flow. We made simultaneous tracings from the sympathectomized and nonsympathectomized toes, using the Burch-Winsor plethysmograph. The blood pressure and pulse rate

were recorded. Then 500 mg. of tetraethylammonium chloride was given intravenously. Immediately the blood pressure began to fall and the pulse rate became more rapid. Within 5 minutes the pressure dropped from 120/85 to 90/70 and the pulse had risen from 80 to 112. At this point the plethysmographic tracings showed a marked reduction in volume flow in the sympathectomized limb but practically no change in the nonsympathectomized toes. Within 35 minutes the pressure and pulse were again normal. The sympathectomized toes showed a return to the original blood volume flow and a slight increase in the nonsympathectomized limb (fig. 6).

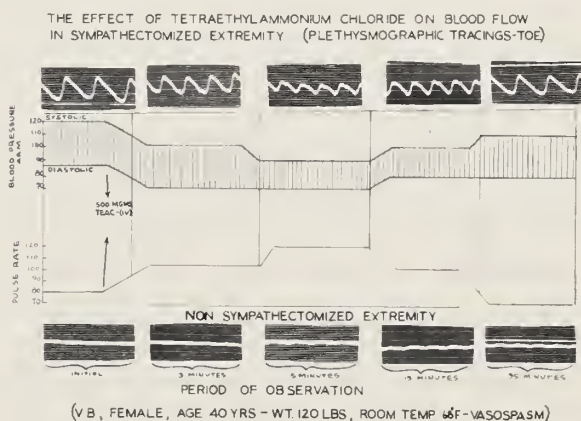


FIG. 6. Effect of tetraethylammonium chloride on blood flow in sympathectomized extremity, showing correlation of fall in pressure to reduction in volume.

DISCUSSION

The intravenous pressure in an acutely obstructed major vein of a limb is a measure of the blood volume in the obstructed venous system. An increase in the arterial blood flow to the limb causes an elevation of the venous pressure, whereas a decrease in flow reduces the pressure. Applying this principle as a method of determining the changes in peripheral blood flow, we have shown that a local interruption of the sympathetics causes an increase in blood flow in the extremities. The effects of blockade of the entire autonomic system by tetraethylammonium chloride on peripheral blood flow vary according to the changes in arterial pressure. In small doses that do not reduce arterial pressure or reduce it only transiently there may

be some degree of increased blood flow. However, this is of short duration. In doses that materially reduce arterial pressure there is also a reduction in the blood volume flow through the extremities. When there is a sudden blockade of the entire sympathetic system the resistance in the peripheral vessels is lowered and there will be a shifting of blood into these vessels. If the systemic blood pressure is maintained there will be an increase in the volume flow through the extremities. However, if the shifting of the blood is sufficient to reduce the arterial pressure, there will be a diminution in the rate and volume of blood flow. This may be partly compensated by an increase in heart rate. Once the vasoconstrictor mechanism is abolished and the pressure falls there may be some pooling of blood, but the velocity of blood flow will be diminished. This pooling of the blood may accomplish a temporary relief of symptoms of ischemia, and through blocking of the sympathetic impulses causalgic pain may be alleviated temporarily. It would be hazardous to diminish the velocity of blood flow in acute thrombotic diseases of the vascular system, and certainly pooling of the blood would add to this hazard.

CONCLUSIONS

A simple reliable method of determining the changes in blood flow in extremities has been described. Through the application of this method it has been shown that small doses of

tetraethylammonium chloride (7 mg. per kilogram of body weight) may temporarily increase the peripheral blood volume. The increase is seldom maintained more than 20 minutes. When the dose of tetraethylammonium chloride is sufficient to reduce the arterial pressure there is a decrease in peripheral blood flow. The reduction in peripheral blood flow closely parallels the fall in systemic blood pressure. Adrenalin causes an elevation in the lowered blood pressure following administration of tetraethylammonium chloride, and as the pressure rises the blood volume flow through the extremities increases. As the effects of the adrenalin subside there is again a reduction in peripheral blood flow. The response to tetraethylammonium chloride is similar in the anesthetized animal (using nembutal) and in the unanesthetized human being. Tetraethylammonium chloride diminishes peripheral blood flow in sympathectomized extremities.

BIBLIOGRAPHY

1. ACHESON, G. H., AND MOE, G. K.: Action of tetraethylammonium ion on mammalian circulation. *J. Pharmacol. & Exper. Therap.*, 1946, **87**, 220.
2. LYONS, R. H., AND OTHERS: Effects of blockade of autonomic ganglia in man; preliminary observations on use of tetraethylammonium bromide. *Univ. Hosp. Bull., Ann Arbor*, 1946, **12**, 33.
3. BERRY, R. L., AND OTHERS: Use of tetraethylammonium in peripheral vascular diseases and causalgic states; new method for producing blockade of autonomic ganglia. *Surgery*, 1946, **20**, 525.

SURGICAL ASPECTS OF SUBARACHNOID HEMORRHAGE

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THE diagnosis and management of spontaneous subarachnoid hemorrhage has become of increasing interest to neurologic surgeons during the past several years. From a consideration of this catastrophic and potentially lethal condition as a clinical and pathologic entity in itself, attention has shifted to the high frequency of rupture of an intracranial arterial aneurysm as the causative lesion. In fact, it may be stated that with the exception of hypertensive cerebral accidents in which subarachnoid blood is simply a manifestation of massive intraventricular flooding, a very few cases of vascular disease in which necrosis or rupture of small vessels on the surface of the brain results in bloody spinal fluid, and rare hemangiomatic tumors, all patients with subarachnoid hemorrhage are suffering from leaking aneurysms of the circle of Willis.

The monumental and original work of Walter Dandy¹ was in large part responsible for the correct orientation of the neurologist and neurologic surgeon toward this difficult problem. His was the first report of a large series of patients in whom intracranial aneurysms were successfully treated surgically, and although his invariable direct attack upon the abnormal vessel is not, at present, considered always to be necessary, a stimulus to more active rather than symptomatic therapy was given.

The large proportion of the arterial aneurysms responsible for episodes of subarachnoid hemorrhage lie on the internal carotid artery and its branches, and the minority (28 per cent) are found to lie posteriorly.² Therefore the majority of such lesions are amenable to surgical correction.

In patients below the age of fifty years, and especially from the ages of ten to forty years, such vascular defects are of congenital origin. The fact that they occur at the point of division of vessels where the medial coat (poor, at best, in the arteries of the cerebral circulation) is likely to be defective has been pointed by Forbus.³ Dandy¹ remarked upon the not uncommon persistence of an embryonically vestigial artery, which had become the site of aneurysmal dilatation.

Above the age of fifty years vascular rupture at the base of the brain is almost always due to fissure in an arteriosclerotic aneurysm. Whereas the congenital variety are of berry or grape-like configuration, arteriosclerotic enlargements are more tubular or fusiform (fig. 3). They may involve an entire vessel, if short, rather than budding from a large trunk, as congenital aneurysms are inclined to do.

Syphilitic aneurysms rarely, if ever, rupture, owing to the plastic type of change in the vascular coat (Huebner's arteritis).⁴

CLINICAL FEATURES

Intracranial aneurysms, of whatever type, are inclined to be silent until rupture occurs.⁵ Prodromal headaches are passed over by the patient as of no unusual character. Occasionally signs of compression of adjacent cranial nerves may antedate symptoms of leakage, resulting in various paralyses of eye movement, defects in visual fields, trigeminal pain, tinnitus, or what not. Ordinarily, however, a patient in perfect health is suddenly attacked by an excruciating headache, frontal, ocular, or occipital in location, and within a very few minutes is

drowsy or unconscious. Examination reveals the changes in consciousness which are typical of cerebral accident, frank signs of meningeal irritation (stiff neck, positive Kernig's sign), and persistence of agonizing pain in the head. The headache is so severe and the physical and psychologic reactions to it so extreme that not infrequently the patient is thought to be suffering from hysteria.

In addition to the above, examination usually discloses signs of neurologic deficit. Varying degrees of paresis of extraocular or pupillary function are quite common, because of the course of the oculomotor and abducens cranial nerves above, around, between and under the arteries of the circle of Willis. Disturbance of bodily sensation, motor weakness, or reflex change is often present, although these abnormalities may be minimal. An intracranial bruit is rarely audible with arterial aneurysms.

The principal points of differentiation from intracerebral hemorrhage ("stroke") are these: The patient with a leaking aneurysm is rarely completely comatose, he always complains of severe headache, he is not necessarily hypertensive, and hemiplegia is likely not to be profound. As compared with cerebral thrombosis or infarct, the onset of the illness is rapid, the patient is frequently young, and the spinal fluid is grossly bloody or xanthochromic.

Lumbar puncture, with the finding of yellow, pink or deep red spinal fluid, is diagnostic. Careful measurement of the fluid pressure with the patient as relaxed as possible is important, in order to gauge the intracranial status. X-ray films of the skull are usually negative but may rarely reveal the calcified wall of the arteriosclerotic aneurysm.⁶

MANAGEMENT IN THE ACUTE PHASE

Despite recent advocacy of immediate active treatment,⁷ the present consensus is to carefully steer the patient, if possible, through the acuity of his illness. This means sedation in order to avoid any further stress on a damaged artery.

In this syndrome morphine, ordinarily withheld in the face of increased intracranial pressure, may be necessary. There must be no straining on voiding or defecating. These patients are often psychotic and present a formidable nursing problem. Paraldehyde is helpful in the control of such a reaction. Ice caps, codeine—anything to relieve the headache—are indicated as well.

Following the diagnostic spinal puncture, further lumbar taps are done only if symptoms persist unabated for several days or if second or third episodes of bleeding occur. It is doubtful if the intracranial fluid pressure ever rises high enough to tamponade a vessel bleeding with arterial force, but adjacent compressing brain tissue may be protecting the point of fissure in the vessel wall.

Patients with subarachnoid hemorrhage should not be allowed out of bed for at least 1 month following the initial or most recent episode of bleeding. They must be protected from physical or emotional strain, and relatives and friends should be warned of the potentially fatal nature of the condition, which may result in sudden death at any time.

The opponents of such a plan for nursing the patient carefully through the initial phase of his illness before undertaking definitive diagnosis and surgical therapy certainly deserve consideration. In my experience a patient was lost recently who might have been saved had arteriography been performed the day of admission, or even had carotid ligation been carried out on the side indicated without X-ray examinations. Hemiparesis and aphasia gave unequivocal evidence of the location of the lesion, which autopsy proved to be ruptured aneurysm of the left middle cerebral artery.

DIAGNOSIS

Lumbar puncture, as noted, establishes the symptomatic diagnosis. As soon as the condition of the patient permits (relative freedom from headache, alertness, spinal fluid pressure near normal limits) arteriography should be undertaken to localize the source of hemorrhage.

Arteriography, which has been described *in extenso* elsewhere,^{5, 8, 9} involves the injection of a radio-opaque fluid into the carotid artery on the suspected side while an X-ray exposure is being made. The needle may be introduced into the artery by puncture through the skin of the neck,⁵ or the artery may be exposed surgically and injected under direct vision. The latter procedure may be advantageous if tolerance by compression of the carotid artery (see below) has been demonstrated prior to arteriography. This can be done if the side and location of the aneurysm are fairly obvious. It is sufficient to inject the common carotid artery rather than attempt more difficult placement of the needle in the internal carotid vessel. Either diodrast, in the same concentration used in pyelography (35 per cent)¹⁰ or colloidal thorium dioxide (thorotrast)⁹ is employed as contrast medium. Thorotrast should not be used if there is danger of infiltration of the soft tissues of the neck (indirect puncture through the skin), and from the point of view of safety diodrast is superior in arteriography. Testing for iodine sensitivity is always done prior to the use of diodrast. The type of film obtained by this procedure may be seen in the examples included.

Approximately 28 per cent of intracranial aneurysms lie posterior to the internal carotid and its branches² and (with occasional exception of dilatations of the posterior communicating artery) will not be demonstrated by this procedure. Indirect and direct injection of the vertebral artery (which forms the basilar artery and thus supplies the brain below the tentorium) is being undertaken to reveal aneurysms in this location.^{5, 9} The procedure is, however, largely of academic interest, inasmuch as surgical attack upon arterial lesions in this locale (brain stem) is very dangerous and usually without worth.¹ A recent report concerning the successful clipping of an aneurysm arising from an aberrant branch of the basilar artery is encouraging, however.¹¹ Therefore, carotid arteriography is, in the main, sufficient for visualiza-

tion of aneurysms amenable to surgical therapy.

Unilateral injection of the carotid is ordinarily sufficient for diagnosis, inasmuch as there are usually some neurologic findings indicating the side of the aneurysm, at least, if not its approximate location. Occasionally, as in case 3, bilateral injection must be done, and Poppen¹² has pointed out the frequency of aneurysmal formation on both sides of the circle of Willis. If bilateral arteriography is negative for aneurysm but there is a typical history with the finding of bloody spinal fluid, the aneurysm lies on one or more of the posterior-inferior vessels at the base of the brain, and is probably not amenable to ligation; the physician must rely upon conservative treatment. An occasional cause of subarachnoid hemorrhage with the "angle syndrome" may merit intracranial exploration.

SURGICAL THERAPY

Dandy first introduced direct attack upon intracranial aneurysms upon any scale, advocating intracranial exposure of the vascular abnormality and its correction by clipping or fulguration. He scorned ligation of the carotid artery in the neck as being nonspecific, except in cases in which the aneurysm was to be isolated by the tying-off of the feeding artery in the neck and intracranial isolation of the lesion from the circle of Willis. Hamby¹³ is likewise in favor of the direct procedure. Two examples of aneurysms which were treated in such fashion are recorded below (cases 1 and 5). The advantage of intracranial clipping is that the neck of the lesion is definitely closed off. The obvious disadvantages are that a full-scale craniotomy is required and that the surgical mortality attendant upon the procedure has been estimated at 25 per cent.¹

Most surgeons treating this condition have been content to rely upon the ligation of the carotid artery in the neck, with reduction of the arterial thrust which is threatening the integrity of the weakened wall of the aneurysm. Again,

there is divergence of opinion as to which vessel should be tied off. There are arguments on both sides.

Prior to ligation of either the common carotid or internal carotid arteries, the ability of the circle of Willis to supply both cerebral hemispheres with blood obtained from only one fully functioning internal carotid should be estimated. This means that fifteen minutes of complete occlusion of the carotid must be tolerated without signs of ipsilateral cerebral anemia (numbness or weakness of contralateral arm or leg, aphasia, or severe dizziness) before ligation can be undertaken. No matter how preoperative compression of the artery is accomplished (by finger pressure or other means) it is probably always the common vessel which is thus shut off. Recently, a metal spring which fits around the neck and presses firmly on the vessel has been devised by Mr. Henry Ator, of Washington, D. C. The use of the band obviates the tedious necessity of manual compression.

Various plans of procedure have been devised for the ligation proper. Some surgeons advocate partial direct occlusion of the internal carotid artery by the use of a metal clip or band, with re-operation in 10 days or 2 weeks, at which time total obstruction is undertaken. Others advise preliminary tying-off of the common vessel with secondary internal ligation after the same interval of time (Asenjo).¹⁴ Dandy favored internal carotid occlusion with the use of a strip of fascia rather than silk.

I am in favor of simple ligation of the common carotid artery on the side of the intracranial aneurysm, after preliminary determination of tolerance by compression, in one stage and in continuity. First, it has been estimated that 50 per cent of the input of the internal carotid artery to one side of the circle of Willis is thus eliminated.¹⁵ Second, occasional cases of cerebral thrombosis or infarction without thrombosis have resulted from ligation of the internal carotid even after 2 weeks have elapsed. Such a cata-

strophic event is almost never seen after common carotid occlusion. Apparently slow, indirect collateral circulation from the other side via communicating branches of the external carotids prevents thrombosis. Sidney Gross¹⁶ has employed ligation of the common vessel only in a series of cases during the past 10 years and has observed no significant recurrences of symptoms in any of his patients.

A case which may be referred to briefly is illustrative of the value of ligation of the common carotid artery in reducing aneurysmal dilations to safe limits. A 42-year-old colored female presented findings of intracranial bruit, reduction of one visual field, and extraocular paresis. There was a history strongly suggestive of subarachnoid hemorrhage. Arteriography on the suspected side disclosed a large aneurysm which arose either from the internal carotid or the middle cerebral artery. Following preliminary compression the patient was operated upon with the intent of intracranial clipping. Immediately prior to craniotomy the common carotid artery was ligated in the neck. At following operation the same morning no definite out-pouching or dilatation could be recognized during a thorough exploration of the circle of Willis on the involved side from the anterior cerebral to posterior communicating arteries. The aneurysm, as seen in the arteriogram, was supraclinoid and definitely not in the cavernous sinus. The only interpretation, therefore, of the operative findings is that ligation of the common carotid resulted in sufficient reduction of arterial thrust to flatten the walls of the previously dilated aneurysm and take the dangerous pressure away. There have been no recurrence of symptoms during the year since this procedure.

It should be stated that experimental studies carried out by Sweet and Bennett¹⁵ are at variance with the discussion just outlined and favor strongly occlusion of the internal carotid rather than the common carotid artery in the indirect treatment of aneurysm. These authors, upon

the basis of blood-flow measurements, deny the value of graduated carotid compression prior to ligation and have concluded that the only effective test of collateral circulation is temporary interruption at the operating table.

They also contend that instead of common carotid closure allowing collateral circulation to the internal carotid vessel in the neck as well as intracranially, the reverse may often be true, internal carotid blood draining into the external vessel and reducing instead of augmenting the adjuvant supply. Furthermore, they feel that late erosion of the artery at the point of ligation is more likely to occur if the tying-off is done below rather than above the carotid bifurcation.

Case 5, below, would seem to be an example of the definite value of graduated compression. A Jacksonian seizure resulted from occlusion of the carotid artery for 15 minutes without preliminary compression. After an interval of weeks had elapsed during which the artery was occluded from without for increasingly longer periods of time the patient was able to tolerate direct interruption at the operating table and permanent ligation without ill effects. Something had happened to increase the collateral circulation meanwhile, and it is my belief that, provided one may safely wait for the length of time necessary, such graduated compression has a definite value in all cases. Numerous instances of hemiplegia resultant upon internal carotid ligation, sometimes as long as 14 days after operation, have occurred in the experience of all neurologic surgeons, whereas there has never been, to the best of my knowledge, such a fearsome consequence from carotid occlusion alone. Again, blood-flow studies to the contrary, it would seem as if collateral circulation is more effective when ligation is carried out below the carotid bifurcation instead of above it. The case cited above in which direct inspection of the point of vascular weakening confirmed the efficacy of common carotid occlusion, and case 2, below, in which complete oculomotor paralysis

due to aneurysm in a patient 67 years of age vanished without a residual following simple ligation of the common carotid artery, are strong enough proofs of the sufficient value of the procedure to justify the avoidance of the risk of hemiplegia attendant upon permanent occlusion of the internal carotid vessel. Gross¹⁶ avoids late, fatal erosion by ligating and then dividing the common carotid, but in the experience of others this rare complication is certainly much less frequent than hemiplegia from internal carotid surgery.

The importance of the posterior collateral circulation through the posterior communicating arteries, and therefore from the basilar and vertebral vessels, in the preservation of adequate cerebral irrigation following carotid ligation is verified by further elaborations of the work of Sweet and Bennett. They have found that it is difficult to secure a consistent fall of intracranial blood pressure distal to the point of occlusion of one internal carotid when the opposite vessel is now shut off by external compression. This affords verification for the contention of Dandy¹ that the posterior communicating arteries are of major anastomotic import in the circle of Willis. Jaeger's successful extirpation of aneurysms of the posterior communicating artery¹⁷ demonstrates, on the other hand, that the presence of these vessels is not essential, in certain cases, at least.

TECHNIC

Details of surgical technic utilized in the treatment of intracranial aneurysm have been given *in extenso* in many monographs and reports. Of primary interest is the decision to clip the aneurysm intracranially or to rely upon carotid ligation. The berry- or bud-like aneurysms which probably represent dilatations of vestigial vessels (Dandy) are ideally constructed for direct clipping or fulguration. Round or fusiform dilatations of the vessels proper (typical of arteriosclerotic aneurysms) are not, because the continuity of an important preterminal

artery may be interrupted. Middle cerebral aneurysms can never be attacked directly because of almost certain hemiplegia. Other factors such as age, tolerance of compression, etc., are obviously of importance in the decision as to approach.

The exposure of the circle of Willis is exactly similar to the operation for pituitary adenoma. A transfrontal or frontotemporal bone flap is reflected on the involved side, extradural dissection carried down to the sphenoid wing, and the infrafrontal region of the brain exposed by section of the dura along the sphenoid wing and then forward along the olfactory groove. Release of spinal fluid, tilting the head back, and following the olfactory nerve posteriorly brings the arterial circle into view. Arteriograms should be present in the operating room, because, as in case 1 below, only the neck of the aneurysm may be visible and the lesion proper may be tucked beneath the sphenoid wing. A clip may be placed on the neck of the sac, which may or may not be fulgurated.

If the decision is made, as in most cases, to rely upon ligation of the carotid artery in the neck, the patient lies supine with a sandbag tilting the head back. Local or general anesthesia may be used. The common carotid artery is exposed by a transverse incision from the midline of the neck to the posterior border of the sternocleidomastoid muscle through a crease in the skin of the neck 2 or 3 finger-breadths above the clavicle. Following the palpable pulsation and carefully dissecting away the internal jugular vein and vagus nerve, the artery comes into view. It must be encircled between the adventitial and medial coats in order to avoid the accompanying sympathetics. A heavy strand of silk ("fish-line") is passed around the vessel on a ligature carrier and the artery tied off.

REPORT OF CASES

The following 5 cases are reported in detail as being illustrative of various types of intracranial aneurysm associated with subarachnoid

hemorrhage, differential treatment, and results. They have been selected from a series of 15 cases variously treated surgically by the author.

Case 1. M. S., a 62-year-old white woman referred by Dr. Dayton O. Watkins of Hyattsville, Maryland, was admitted to the Prince Georges Hospital, Cheverly, Maryland. The patient had had severe right frontal and occipital headaches all of her life. There had been almost complete paralysis of the right oculomotor nerve for the prior 2 years. During this period of time headaches had been more severe. Two weeks prior to admission there had been an episode of fainting, with excruciating headache, and pains in the neck, face, arms and legs thereafter.

Neurologic examination disclosed almost complete oculomotor paralysis on the right, stiffness of the neck, and positive Kernig's sign. Because these signs were thought to be typical of subarachnoid hemorrhage lumbar puncture was not done.

The common carotid artery was exposed surgically and diodrast injected. Films made disclosed a sac- or bottle-like aneurysm budding from the internal carotid artery (fig. 1). Despite the patient's age it was evident that the abnormality was of congenital (vestigial vessel) rather than arteriosclerotic origin.

On December 3, 1947, right transfrontal craniotomy was performed at the Prince Georges Hospital. Exposure of the circle of Willis on this side disclosed the neck of the aneurysm, surrounded by adhesions, curving around and under the sphenoid wing. The sac proper (which lay in the temporal or middle fossa) could not be visualized. A clip was placed on the stalk (fig. 2).

The postoperative course was stormy and required frequent lumbar punctures (one of which was bloody). The patient was discharged from the hospital on December 24, 1947.

At present, 1 year later, she is feeling quite well and experiences only occasional mild headache. Diplopia is completely absent. Ptosis of the right eyelid is also gone, but there is an interesting lid-lag on downward gaze. There have been no further episodes of subarachnoid hemorrhage.

Case 2. G. J., a 67-year-old white woman referred by Dr. John Griffin of Hughesville, Maryland, was admitted to the George Washington Hospital on February 22, 1948. Two months previously, following exertion, complete oculomotor paralysis on the left had developed suddenly. Since that time there had been 2 episodes of severe headaches, loss of consciousness, and retraction of the head. Positive neurologic findings at the time of admission were confined to the left ocular paralysis and ptosis of the eyelid.



FIG. 1. Case 1. Saccular aneurysm (arrow) arising from posterior aspect of internal carotid artery.

Following an unsuccessful attempt at percutaneous injection of the carotid artery on the left, it was exposed surgically and an arteriogram (with diodrast) made. The film disclosed a fusiform enlargement of the posterior communicating artery (fig. 3).

Compression of the carotid artery in the neck had been undertaken prior to arteriography. Following the taking of films the patient was returned to the operating room and the common vessel was occluded directly for 30 minutes, during which time no neurologic signs (patient awake) developed. Permanent ligation was then performed. The patient was discharged from the hospital on March 20, 1948.

Astonishingly, the eye opened postoperatively, and at the present time there is no subjective evidence of extraocular palsy, a normal pupil, and perfect control of lid action. There have been no headaches and no further episodes suggesting bleeding.

Case 3. W. H., a 56-year-old white man of vigorous habits, was seen at the Leland Memorial Hospital at the request of Dr. Lawrence Malin on February 1, 1948. He had experienced mild but sharp headaches in and above the right eye for some weeks prior to the episode which necessitated hospitalization. Without further



FIG. 2. Case 1. Postoperative X-ray film showing silver clip applied to neck of saccular aneurysm.



FIG. 3. Case 2. Arteriosclerotic aneurysm (arrow) of posterior communicating artery.

prodromata an excruciating headache terminated in unconsciousness, and upon admission to the hospital the spinal fluid was found to be grossly bloody.

At the time of examination the only positive neuro-

logic finding, in addition to a mildly stiff neck and positive Kernig's sign, was a neutral plantar (equivocal Babinski) response in the left foot. Not having the history of right ocular pains preceding the hemorrhagic episode at this time, it was felt necessary to make carotid arteriograms on both sides, although a right anterior aneurysm was suspected on the basis of the left plantar reflex.



FIG. 4. Case 3. Congenital aneurysm (arrow) of anterior communicating artery.

Bilateral arteriography disclosed a small aneurysm of the anterior common carotid communicating artery on the right (fig. 4). Following compression, the artery was ligated. The patient has been asymptomatic since.

Case 4. L. F., a 36-year-old white man, was first seen at the Gallinger Municipal Hospital on February 12, 1948. A provisional diagnosis of hysteria, because of premorbid tension state, severe occipital headache and arching of the back, was soon changed to that of subarachnoid hemorrhage from intracranial aneurysm when the spinal puncture revealed bloody fluid. At first minimal, signs of involvement of the left frontal lobe (aphasia, hemiplegia, disorientation and confusion) became marked. The patient was near death on several occasions during 2 repeated episodes of bleeding. Two attempts at arteriography on the left by indirect puncture were unsuccessful for technical reasons. Infection in the neck developed and required surgical draining.

Finally, following tolerance-compression, the left common carotid artery was exposed and injected with diodrast. Much to our surprise, not 1 but 3 aneurysms of the circle of Willis were evident in the X-ray films

(fig. 5). They involved the left internal carotid, anterior cerebral, and anterior communicating arteries.

The common carotid artery was ligated; the patient was discharged from the hospital and is doing well.

Case 5. M. J., a 33-year-old white woman, was admitted to the Doctors Hospital, Washington, D. C. on December 22, 1947, for surgical exploration of the pituitary region. During the prior 2 years she had complained of increasingly severe frontal headaches. X-rays of the skull revealed enlargement of the sella turcica. Physical characteristics were typical of acromegaly, and there were bitemporal visual field defects (when tested with colored objects only). Immediately before admission she became very drowsy and had difficulty in staying awake during the day. She was amenorrheic. The patient was under the care of Dr. Robert Groh.



FIG. 5. Case 4. Multiple aneurysms (arrows) of circle of Willis.

The next day the chiasmal region was explored through a right transfrontal craniotomy by Dr. James Watts. Moderate bulging of a thick pituitary capsule was visualized between the optic nerves. Just to the left of the chiasm there was a bluish cyst, aspiration of which returned pure blood under high pressure. After hemostasis was accomplished the wound was closed.

She was discharged from the hospital after a period of convalescence, and readmitted for arteriography.

On January 28, 1948, the left common carotid artery was exposed and 35 per cent diodrast injected. The films made revealed a large parasellar aneurysm of the internal carotid artery (fig. 6). It could not be determined whether the sac arose from the wall of the artery or was a dilatation of the vessel.



FIG. 6. Case 5. Aneurysm of internal carotid artery in cavernous sinus (shown between arrows).

Preliminary test-compression of the carotid artery had not been made. The common carotid was clamped off for 15 minutes. At the end of this time there was a Jacksonian convulsion involving the right face and arm, which left the patient with transitory aphasia and numbness of the right side of the body. The artery was, therefore, not ligated.

The headaches remained severe and persistent. Because the patient apparently could not tolerate carotid ligation it was hoped to be able to isolate the aneurysm intracranially without interfering with the circulation of the circle of Willis. On February 4, 1948 left transfrontal craniotomy was performed. The region immediately adjacent to the pituitary fossa was thoroughly explored, with removal of bone from the inner sphenoid wing. It became apparent that the aneurysm did not bud from the wall of the carotid artery but was rather a fusiform vascular dilatation and lay in the cavernous sinus. After this identification nothing further was done.

In the interval the patient received a course of roentgen irradiation in order to determine how much of her chief complaint (headache and facial pain) was due to the pituitary adenoma, which was undoubtedly active (acromegaly and amenorrhea) in spite of its small size. There was little if any relief from the headache. Meanwhile the left common carotid artery was

compressed progressively so that she was able to tolerate occlusion for 15 minutes without symptoms. Previous aphasia and hemisensory loss had long since disappeared.

On March 12, 1948 the common carotid artery was ligated. There were no signs of cerebral anemia thereafter. However, the headaches and pain in the face persisted. It was felt that the aneurysm was of such a size that it had not been reduced by ligation below and that it would have to be isolated.

On July 14, 1948 the old left frontal craniotomy wound was reopened. The chiasmal region was exposed on the left and the internal carotid artery identified just above the aneurysm. Two silver clips were placed on the vessel between the dilatation and the branching (fig. 7). The wound was closed. Since that time (7 months) there has been slow but steady improvement. The headaches are less and less frequent and severe, and the patient's mental attitude has changed much for the better.



FIG. 7. Case 5. Postoperative X-ray film showing clips on internal carotid artery above aneurysm.

DISCUSSION

In a consideration of surgical versus conservative therapy of spontaneous subarachnoid hemorrhage, the question naturally arises as to the long-term advantage of the one over the other. This necessarily involves comparison of mortality statistics. As far as can be determined, the number of patients dying in a first attack from rupture of an aneurysm of whatever type is approximately 40 per cent. About 30 per cent of the remaining cases expire during second, third, or fourth episodes during the next 10 years.⁵ That an occasional patient makes a striking recovery after a program of bed rest and

lumbar punctures should not cause one to overlook the over-all, gloomy statistical prognosis without active attempts to assist the weakened vessel to resist further rupture. Moreover, as in cases 1 and 2 above, surgery may result in partial or complete return of function of compressed cranial nerves (the oculomotor, particularly) which is ordinarily not seen with improvement during medical management.

The higher operative mortality attendant upon intracranial ligation must also be weighed against the possibility of hemiplegia from internal carotid ligation in the neck and the flow-reduction of 50 per cent only (without cerebral infarction) after ligation of the common carotid. The location and configuration of the aneurysm is of primary interest in choosing a plan of attack. All factors must be considered carefully during the choice of procedure.

It may be stated dogmatically that every case of subarachnoid hemorrhage should be offered the benefits of arteriography as soon as this diagnostic test may be done safely. Only in this manner may etiologic diagnosis be confirmed and curative therapy be undertaken.

SUMMARY

The etiology, acute management, localizing diagnosis, and therapy of subarachnoid hemorrhage associated with ruptured intracranial aneurysm are discussed. Five cases of intracranial aneurysm with hemorrhage, treated surgically, are presented. Another case is

mentioned incidentally as one in which direct inspection of the circle of Willis confirmed the success of ligation of the common carotid artery in collapsing the walls of an aneurysm. Variations in the plan of operative attack upon these vascular abnormalities are considered, with the advantages and disadvantages of each. The value of surgical rather than conservative treatment is emphasized.

BIBLIOGRAPHY

1. DANDY, W. E.: Intracranial Arterial Aneurysms. Ithaca, N. Y.: Comstock, 1944.
2. McDONALD, C. A., AND KORB, M.: Arch. Neurol. & Psychiat., 1939, **42**, 298.
3. FORBUS, W. D.: Bull. Johns Hopkins Hosp., 1940, **47**, 239.
4. ZIMMERMAN, H. M.: Personal communication.
5. POPPEN, J. L.: Am. J. Surg., 1948, **75**, 178.
6. SOSMAN, M. C., AND VOGT, E. C.: Am. J. Roentgenol., 1926, **15**, 122.
7. WECHSLER, I. S., AND GROSS, S. W.: J.A.M.A., 1948, **136**, 517.
8. GROSS, S. W.: S. Clin. North America, April 1948, p. 405.
9. MONIZ, E.: L'angiographie cerebrale. Paris: Masson, 1934.
10. GROSS, S. W.: Proc. Soc. Exper. Biol. & Med., 1939, **42**, 258.
11. SCHWARTZ, H. G.: J. Neurosurg., 1948, **5**, 178.
12. POPPEN, J. L.: Cerebral arteriography and aneurysms of cerebral arteries, read at 33rd Annual Meeting of Radiological Society of North America, November 30–December 5, 1947.
13. HAMBY, W. B.: J. Neurosurg., 1948, **5**, 178.
14. ASENJO, A.: Personal communication.
15. SWEET, W. H., AND BENNETT, H. S.: J. Neurosurg., 1948, **5**, 178.
16. GROSS, S. W.: Unpublished data.
17. JAEGER, R.: Unpublished data.

JAUNDICE IN MYOCARDIAL INFARCTION*

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THE occurrence of frank jaundice in cases of myocardial infarction or coronary occlusion, uncomplicated by congestive heart failure or pulmonary infarction, is quite uncommon. Only 3 previous reports^{1, 2, 3} are found to discuss this finding with any thoroughness, and in each report 1 case is presented. Ten other cases^{4, 5, 6, 7, 8} in which jaundice was mentioned as an incidental finding of coronary occlusion (or angina pectoris in the older terminology) have been reported.

In a thorough clinico-pathologic study of jaundice in heart disease, Kugel and Lichtman⁹ found 17 cases of frank jaundice in 424 cases of heart disease. Of these 17 cases 16 were associated with hemorrhagic infarction of the lung, giving weight to the clinical observation of Eppinger¹⁰ and Keefer and Resnik¹¹ that the sudden appearance of jaundice in myocardial insufficiency should make one suspect that pulmonary infarction has occurred, even when obvious evidences of such infarction cannot be obtained. Kugel and Lichtman found among their cases 98 of coronary artery thrombosis in 33 of which pulmonary infarction occurred. In none of the 65 cases without pulmonary infarction did jaundice appear and in only 2 cases with pulmonary infarction was there frank jaundice. In both these cases there were longstanding myocardial infarction and terminal congestive heart failure.

We have recently observed a patient with an anterior myocardial infarction, uncomplicated by clinically evident congestive heart failure or pulmonary infarction, in whom frank jaundice appeared.

REPORT OF CASE

B. C. H., Case No. 1087026. P. R., a 55-year-old white man, was admitted to the hospital on November 10, 1942, because of severe substernal pain of 1 hour's duration. An hour before admission, while pulling out a drawer in a hardware store where he worked, the patient experienced severe substernal pain radiating down the inner aspects of both arms and described as squeezing in character. A tablet of nitroglycerin relieved the pain for a few minutes, but it returned and was unaffected by a second tablet of nitroglycerin. During this period the patient perspired profusely and became somewhat dyspneic and very apprehensive. Because the substernal pain continued unabated, the patient sought hospitalization.

The patient had always enjoyed vigorous health until 1 year before, when he began having attacks of substernal pain which lasted from 3 to 5 minutes. These attacks occurred especially after meals and were precipitated by walking fast and by walking upstairs but were always relieved by rest. There was also noted slight dyspnea on exertion. He consulted a physician a year ago, was told he had high blood pressure, and digitalis was prescribed. Digitalis was taken until a month ago when the patient himself discontinued it because of severe occipital headaches.

One week before because of recurrent substernal pain and shortness of breath the patient consulted another physician. At that time the blood pressure was 200/110, the heart sounds were of good quality with normal sinus rhythm, and slight pitting edema of the ankles was noted. Nitroglycerin, luminal, aminophylline tablets and restriction of activities were prescribed.

Ten years before the patient had had pneumonia and pleurisy, complicated by jaundice.

The temperature was 98°F., the pulse rate 72, the respiratory rate 30, and the blood pressure 160/100. Physical examination revealed a pallid, apprehensive white male who was cyanotic and complained of substernal pain. There was moderate tachypnea. The fundi revealed arteriovenous nicking and moderate arteriolar sclerosis, but no exudates or hemorrhages. The sclerae were white. Examination of the lungs was not remarkable. The heart sounds were somewhat distant and muffled; no murmurs were made out, and

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there was an occasional premature beat with normal sinus rhythm and a rate of 70. In both arms the blood pressure was 160/100. The liver was not palpable. No edema was found.

An electrocardiogram (fig. 1) on admission showed T₁ and T₄ upright with high origin, T₂ and T₃ diphasic with low origin, P-R interval of 0.16 second, Q-S interval of 0.08 second, normal sinus rhythm, normal axis, and was interpreted as being characteristic of an acute anterior myocardial infarction. Serial electrocardiographic tracings revealed characteristic evolution of the pattern of an anterior myocardial infarction.

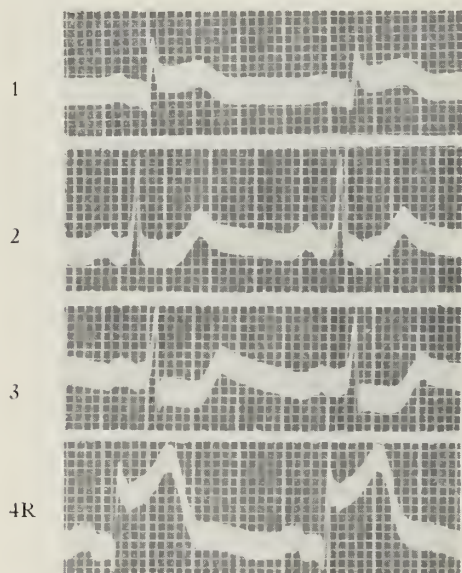


FIG. 1. Electrocardiogram taken on day of admission. Interpreted as being consistent with acute anterior myocardial infarction.

Laboratory data on the day of admission showed a hematocrit of 46 mm., a corrected erythrocyte sedimentation rate of 8 mm. per hour, normal urinalysis, and a white blood cell count of 13,600 with 84 per cent old and 6 per cent young polymorphonuclear cells and 10 per cent lymphocytes. The icterus index on admission was 5 units and the nonprotein nitrogen was 38 mg. per cent. The Hinton test was negative.

The patient was placed on a regimen of absolute bed rest and sedation, and it was not found necessary to exhibit digitalis during his hospital stay. There was a moderate temperature elevation during the first week with a fall in the blood pressure (fig. 2), but with gradual improvement in the patient's condition. On the fifth hospital day a pericardial friction rub was heard over the lower end of the sternum; this persisted for 2 days.

On the fifth day of illness the patient's wife thought his skin was yellow, and on the sixth day the sclerae were definitely icteric. On this day the icterus index was 30 units. The patient was afebrile and asymptomatic; the heart rate was 84 per minute with normal sinus rhythm, and a pericardial friction rub was present; the lungs were not remarkable on physical examination.

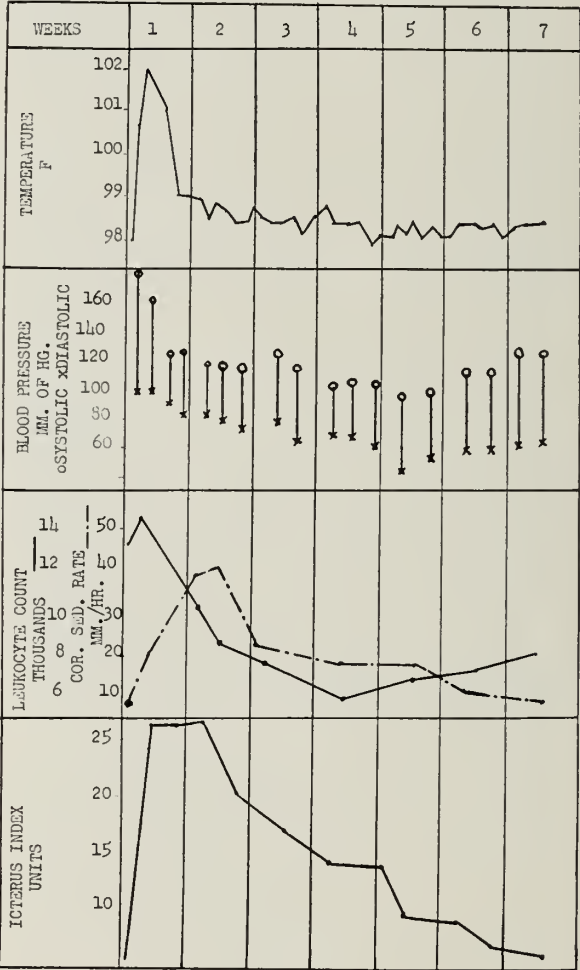


FIG. 2. Clinical course

There were no signs or symptoms of congestive failure or pulmonary infarction. The jaundice had come on insidiously; there was no pain, nausea or vomiting, and the patient's appetite was improving. The liver and spleen were not palpably enlarged.

The jaundice persisted unabated for a week, after which there was gradual diminution, and by the end of 2 weeks it was not clinically evident. However, the icterus indices remained elevated for an additional week (fig. 2).

Several roentgenograms of the chest were not remarkable beyond revealing a hypertensive deformity of the heart shadow. A flat plate of the abdomen did not reveal opaque biliary calculi nor was there or had there been any symptomatology referable to the biliary tract. The patient was not addicted to alcoholic beverages.

Liver function studies revealed decreased function. The total proteins were 5.88 grams per cent, with negative Takata-Ara and formol gel tests. The hippuric acid test showed an excretion of 1.5 grams, and the cephalin flocculation test was interpreted as 2+. A repeat cephalin flocculation test 3 months later was interpreted as 1+. Bile was noted in the urine on the thirteenth hospital day. Urine urobilinogen was present in dilution of 1:64 on the thirteenth hospital day and 1:1 a week later. A reticulocyte count at the height of clinical jaundice was 0.9 per cent with a normal erythrocyte fragility test.

Repeated physical examinations, laboratory data, and observation of the clinical course did not reveal any extraneous cause for the jaundice.

The patient began restricted, gradually increasing activity during the sixth hospital week and was discharged on December 24, 1942.

He reported on March 15, 1943, by which time there had been no recurrence of symptoms and he was contemplating return to work. Roentgenogram and electrocardiogram were not remarkable; the corrected erythrocyte sedimentation rate was 15 mm. per hour, the white cell count was 5,800, and the icterus index was 7.5 units. Physical examination of heart and lungs was negative.

The patient was followed at the cardiac clinic of another hospital (Massachusetts General Hospital). On August 30, 1944, electrocardiogram confirmed the clinical diagnosis of coronary heart disease and an old anterior myocardial infarction. There remained evidence by history of coronary insufficiency manifested by angina pectoris on effort, especially after meals. However, the patient was able to work full time.

On September 5, 1945, the patient was reported doing well with no signs of congestive failure. A cholecystogram revealed a normal, well functioning gallbladder without evidence of stones. On February 27, 1946, a repeat electrocardiogram was reported to show little change since the tracing in 1944. The patient was doing quite well and working when last seen on March 26, 1947.

Here then is a case of an acute anterior myocardial infarction during the course of which there was no congestive heart failure or pulmonary infarction evident clinically, and during which frank jaundice appeared and subsided.

Extraneous etiologic factors for the jaundice were sought for without success.

DISCUSSION

Hamburger¹ presented a case in which there was a sudden onset of severe right upper quadrant pain with hypertension and an antecedent history of angina pectoris. Jaundice developed on the second day of the illness and lasted for a week. There were positive tests for bile in the urine. In this case there was great difficulty in making a differential diagnosis between cardiac and hepatic or gallbladder disease. Since the patient seemed improved, he was allowed to get out of bed by the twelfth day. Two weeks from the onset of his illness, he died suddenly.

In the report of Halsted and Bauer² a rather typical case of coronary thrombosis with electrocardiographic confirmation was complicated on the fourth day by the appearance of frank jaundice. The jaundice increased and then subsided 9 days after it was first noticed. A van den Bergh test was positive with a direct reaction, and bile was found in the urine at the height of the jaundice. There was no congestive heart failure present. The appearance of the jaundice in this patient, who was a physician, seemed to cast some doubt as to the diagnosis of coronary thrombosis in the minds of some of his medical friends. An eminent cardiologist believed that the jaundice might be caused by a coincident biliary tract obstruction. However, the patient died suddenly about 8 weeks after the onset of illness and autopsy revealed a normal gallbladder and biliary passages with no stones present. The liver revealed central congestion and slight focal necrosis. The heart weighed 550 grams and a large posterior myocardial infarction with thrombosis of the left coronary artery was found.

Feldman³ reported a case of coronary occlusion in which jaundice was noted by the patient about 14 hours after the onset. When the patient was examined on the fourth day of his illness the sclerae and skin were moderately

icteric; the liver was enlarged to 4 fingerbreadths below the costal margin and was very tender; a few moist rales were present at the lung bases. On the sixth day, with the icterus subsiding, there was an icterus index of 19.5 and a delayed direct van den Bergh test. The urine showed no bile, but urobilinogen was increased. Eleven days after the onset the jaundice was not present. The gallbladder was studied before discharge of the patient and showed normal visualization. Here again, the question of ruling out disease of the biliary passages arose. Feldman felt that the acute congestive, right-sided failure played a factor in the causation of the jaundice.

In the present case frank jaundice was present from the fifth to the fourteenth day after onset of the illness. The clinical course (fig. 2), aside from this complication, was rather typical of a myocardial infarction. At the height of the jaundice, the icterus indices were 30 and bile appeared in the urine, as it did in 2 of the 3 other cases briefly described. Increased urobilinogenuria was also transiently present. There was moderate impairment of liver function with some improvement after 3 months of convalescence, as shown by a decreasingly positive cephalin flocculation test.

Jaundice in cardiac disease is found to be accompanied almost always by congestive failure. Fishberg¹² believed that the most important factor in the causation of jaundice in congestive heart failure is the increased destruction of red blood cells that occurs. Kugel and Lichtman⁹ have pointed out the utter rarity of jaundice in congestive heart failure without pulmonary infarction. White¹³ in his extensively used text stated that jaundice is not itself produced by any heart lesion, but may be found in several complications of heart disease. He stated that the conditions accompanying heart disease that may give rise to jaundice are acute liver damage, cardiac cirrhosis secondary to chronic congestive failure, and pulmonary infarction. In the last condition which is caused by emboli or thrombi secondary to slowed circulation the immediate cause of jaundice is the inability of

the congested liver to cope with the great temporary increase in blood pigments entering the circulation from the infarcted area. For practical purposes, then, in the absence of primary liver or biliary tract disease, the occurrence of jaundice in congestive heart failure means the presence of pulmonary infarction.

The physiologic explanation of the appearance of jaundice in congestive failure is based upon the known increased bilirubinemia and the anoxemia which exists. Keefer and Resnik¹¹ showed that pulmonary infarction in such cases produces anoxemia which may be sufficient to cause central necrosis of the liver. The type of jaundice in these cases may be either the retention or regurgitation type, as Rich¹⁴ carefully pointed out, depending on the extent of liver damage.

However, in the case presented here, and in the 3 cases briefly summarized, long-standing congestive heart failure was absent. In Feldman's case³ acute right heart failure was apparently present for a few days. In none of the cases, including the one which was autopsied, was there evidence of pulmonary infarction. Thus, in this small group of cases the usual factors which are present in cases of jaundice in heart disease were not found, nor was there evidence of primary liver or biliary tract disease. The causation of the jaundice here is more directly a consequence of a primary cardiac lesion.

Watson¹⁵ in a recent review of the bile pigments pointed out that myocardial infarction may often be productive of marked urobilinogenuria. After a myocardial infarct the urobilinogen reaction does not usually become positive before 2 or 3 days, in contrast with acute biliary colic or acute cholecystitis in which the reaction appears almost at once. Serial quantitative urine urobilinogen tests may be helpful in the diagnosis and care of coronary thrombosis with myocardial infarction and its complications. Watson felt that there is considerable reason to believe that the increased urobilinogenuria indicates liver damage due to substances coming from the infarcted area.

In addition to this interesting possibility, jaundice in myocardial infarction can be explained on an analogous basis to jaundice in pulmonary infarction. Increased red cell destruction occurs in the infarcted heart muscle giving rise to hyperbilirubinemia. The presence of anoxemia in coronary thrombosis is well known, as is also the effect of anoxemia on hepatic function, reducing the ability of the liver to clear the blood of a sudden increase in the bile pigments. Although the anatomic factor producing the jaundice in these cases differs from that in congestive failure with pulmonary infarction, the physiologic mechanism is much the same, namely, increased bilirubinemia and anoxemia.

Recently in a thorough metabolic study of 3 patients with myocardial infarction without signs of peripheral vascular collapse, Altschule and Rosenfeld¹⁶ found creatinuria, negative nitrogen balance, and increase of blood nonprotein nitrogen. Blood lactate, pyruvate and amino acid levels were also slightly elevated. These data show the existence of a preponderance of catabolic activity following myocardial infarction even in the absence of prolonged shock. The cause of this catabolic activity following myocardial infarction has not been studied, but in other conditions of stress or damage, abnormal activity of the adrenal cortex has been implicated. The authors feel that the metabolic and clinical characteristics of myocardial infarction resemble the "alarm reaction," as elucidated by Selye. They also believe that the data in their study may have some bearing on the problem of the cause of icterus following myocardial infarction. The explanation usually advanced that hepatic damage occurs as a result of acute congestion of the liver due to the cardiac lesion does not seem tenable, since clinically detectable hepatic engorgement is not uncommonly absent in patients in whom icterus develops after cardiac infarction. Of interest is the occurrence of unexplained hyperbilirubinemia in patients with severe thyrotoxicosis, or thermal burns, in persons subjected to excessively high and prolonged

artificial fevers, and in men after a marathon run. All these conditions are also characterized by a negative nitrogen balance, hyperglycemia, and elevated blood lactate and pyruvate levels. To Altschule and Rosenfeld it seems reasonable to add myocardial infarction to the list of conditions in which decided and prolonged catabolic activity may be followed by hyperbilirubinemia, although the precise cause of the apparent depression of hepatic function in all these conditions is not known.

The question of why jaundice occurs in so few cases of myocardial infarction is not readily answered. Possibly preëxisting liver damage, slight though it may be, may predispose to the appearance of jaundice in these cases. Too few cases have been observed to establish any prognostic significance to this sign in cases of myocardial infarction.

SUMMARY

A case of jaundice occurring in myocardial infarction without congestive heart failure or pulmonary infarction is presented. The literature and etiology are discussed.

BIBLIOGRAPHY

1. HAMBURGER, W. W.: *M. Clin. North America*, 1920, **3**, 1677.
2. HALSTED, J. A., AND BAUER, W.: *Ibid.*, 1933, **16**, 951.
3. FELDMAN, L.: *Ibid.*, 1940, **24**, 263.
4. OSLER, W.: *Lancet*, 1910, **1**, 697.
5. NEUSSER, E.: *Clinical Treatises on the Symptomatology and Diagnosis of Disorders of Respiration and Circulation. Part III. Angina Pectoris*. New York: Treat, 1909.
6. WEARN, J. T.: *Am. J. M. Sc.*, 1923, **165**, 250.
7. FAULKNER, J. M., MARBLE, H. C., AND WHITE, P. D.: *J.A.M.A.*, 1924, **83**, 2080.
8. LEVINE, S. A., AND BROWN, C. L.: *Medicine*, 1929, **8**, 245.
9. KUGEL, M. A., AND LICHTMAN, S. S.: *Arch. Int. Med.*, 1933, **52**, 16.
10. EPPINGER, H.: *Handb. d. spec. Path. u. Therap.*, Berlin, 1923, **6**, 293.
11. KEEFER, C. S., AND RESNIK, W. H.: *J. Clin. Investigation*, 1925-26, **2**, 375 and 389.
12. FISHBERG, A. M.: *J.A.M.A.*, 1923, **80**, 1516.
13. WHITE, P. D.: *Heart Disease*, 3rd ed. New York: Macmillan, 1946, pp. 40-1.
14. RICH, A. R.: *Bull. Johns Hopkins Hosp.*, 1930, **47**, 338.
15. WATSON, C. J.: *New England J. Med.*, 1942, **227**, 705.
16. ALTSCHULE, M. D., AND ROSENFELD, F. M.: *Arch. Int. Med.*, 1947, **80**, 74.

SALMONELLA CHOLERAESUIS BACTEREMIA TREATED WITH STREPTOMYCIN

Report of a Case

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AS ESCHWEILER, Wahlin, and Snow¹ reported in 1944, "it is becoming increasingly evident that sporadic infection with bacteremic manifestations, caused by *Salmonella choleraesuis*, are no longer medical rarities." This case, therefore, is not presented as an unusual disease but is an attempt to revive interest in its diagnosis and to show the effect of new therapeutic weapons, penicillin and streptomycin, on this organism in vivo. From the literature Gouley and Israel² reported 34 cases covering the period from 1919 to 1932, and in 1937 Harvey³ reviewed 50 proved cases of *S. choleraesuis* (*suipestifer*) infection and added 21 cases treated at the Johns Hopkins Hospital, making a total of 71. Other cases have been reported from Boston,⁴ Virginia,⁵ Arkansas,¹ and all parts of the world.⁶

It is of interest to note the type of case in which this infection is most likely to occur, since its infectiousness is less marked than with paratyphoid A and B bacilli. Most reports indicate its predilection for children or adults debilitated by other diseases, surgical operations, or malnutrition.⁷

REPORT OF CASE

V. B. was a 53-year-old colored woman who entered the Garfield Memorial Hospital on September 3, 1948, with a chief complaint of dizziness, weakness, and diarrhea of 3 days' duration. She had had an enlarged thyroid for 25 years, and diabetes mellitus had been known to exist for 10 months. She was a resident of

Washington, D. C., and she had had no history of exposure except for a visit to the country in South Carolina where she drank well water 9 months previously.

Physical examination revealed dehydration, a diffusely enlarged thyroid, tachycardia and an apical systolic murmur. A complete blood count was normal with a leukocyte count of 5,900. The urine showed only "many leukocytes." The temperature on admission was 103.6°F.

The stool was found to contain many *Entameba histolytica*, and a course of emetine and diodoquin was given with a fall in temperature to normal after 3 days. It remained so for the next 9 days until the temperature suddenly rose to 104.6°F. and fluctuated from 99° to 105°F. until her death. Several malaria smears were negative. Five days before death a blood culture was positive for *Salmonella choleraesuis*. At the same time agglutinations which had been negative before showed agglutination with *Paratyphoid B* to 1:1600. The Army Medical Center confirmed the identification of the organism as *S. choleraesuis*.

Because of the urinary frequency with a pyuria developing subsequently and a urine culture demonstrating *E. coli* this patient was presumed to have a urinary tract infection and was started on sulfacetimide. This was without effect and although localizing symptoms were at a minimum this patient was started on streptomycin, 1.8 Gm. daily in divided dosage at 4-hour intervals after a blood culture was taken. This culture, taken 13 days before death, proved to be the one demonstrating the *S. choleraesuis* organism. Three days later the dosage of streptomycin was reduced to 1.2 Gm. a day, and this was continued for 6 additional days without affecting the fever. Eight days prior to her death the patient was placed on 300,000 units of crystalline procaine penicillin daily without demonstrable improvement.

On postmortem examination the patient was found to have cardiac dilatation (secondary to *Salmonella*

septicemia), pulmonary edema, acute splenic tumor, thyroid adenoma, acute proliferative glomerulonephritis and focal necrosis of the liver. Culture from the heart blood and spleen yielded a gram-negative bacillus belonging to the genus *Salmonella*.

DISCUSSION

The two interesting features in this case are the epidemiology of the disease and the failure of the *S. choleraesuis* organism to respond to either penicillin or streptomycin.

In cases of this type three members of the Paratyphoid C group have been isolated and are indistinguishable from *S. schottmulleri* (Paratyphoid B bacillus) by the ordinary fermentation tests. Differentiation is possible by their action on special sugars and their serologic reactions in properly prepared antisera. This report is unusual in demonstrating an agglutination titer of 1:1600 with Paratyphoid B when *S. choleraesuis* was indisputably present. The three species of this group of organisms are: 1. *S. hirschfeldii* (Paratyphoid C bacillus, Eastern type of *S. suipestifer*), 2. *S. choleraesuis* (hog cholera bacillus, American type of *S. suipestifer*), and 3. *S. choleraesuis* var. *kuzendorf* (European type of *S. suipestifer*). How man becomes infected remains a puzzle as it did in this case. Although the two varieties of *choleraesuis* are natural pathogens of swine, most human infections cannot be traced to these animals, and the relationship, if indeed there be any, must not be close. The fact that this disease occurred in a hospitalized patient, having its presumed onset 16 days after admission, when no other patient was infected, brings up the question of this disease arising from an endogenous source during a debilitated physical condition. Walter,⁸ quoting Seligman et al, states that of 1,000 persons with *Salmonella* infection who were studied in the New York *Salmonella* Center, 10 per cent were healthy carriers, and a considerable number of these were food handlers.

As regards treatment some (Bornstein and Strauss) would recommend sulfaguanidine⁸ and others sulfadiazine,⁹ but most everyone would

agree that therapy is unsatisfactory. This report indicates a failure of two newer antibiotics, penicillin and streptomycin. The mortality rates vary widely in reported series. In one series² the death rate for children was 7 per cent, whereas in adults it rose to 57 per cent. The usual pathologic findings are those of any generalized infection, with acute splenic tumor, focal necrosis of the liver, cloudy swelling of the kidneys, and scattered petechial hemorrhages. A conspicuous feature has been the absence of intestinal lesions.⁷

SUMMARY

A case of a 53-year-old colored woman who died of *S. choleraesuis* bacteremia despite therapy with penicillin and streptomycin has been presented. As in most previously reported cases no extrinsic source of infection was found and the disease occurred in a "susceptible" individual (children or adults debilitated by other diseases, surgical operations, or malnutrition). The idea of an endogenous source for this infection is expressed.

BIBLIOGRAPHY

1. ESCHWEILER, P. C., WAHLIN, J. G., AND SNOW, A.: Infection due to *salmonella choleraesuis*. *Ann. Int. Med.*, 1944, **20**, 275.
2. GOULEY, B. A., AND ISRAEL, S. L.: *Salmonella suipestifer* bacteremia with acute endocarditis. *Arch. Int. Med.*, 1934, **53**, 699.
3. HARVEY, A. M.: *Salmonella suipestifer* infection in human beings. *Ibid.*, 1937, **59**, 118.
4. GOULDER, N. E., KINGSLAND, M. F., AND JANEWAY, C. A.: *Salmonella suipestifer* infection in Boston. *New England J. Med.*, 1942, **226**, 127.
5. HENDERSON, W. C.: *Salmonella suipestifer* infection of urinary tract. *J.A.M.A.*, 1942, **119**, 259.
6. KUTTNER, A. G., AND ZEPP, H. D.: *Salmonella suipestifer* infections in man; further observations. *Ibid.*, 1933, **101**, 269.
7. JANEWAY, C. A.: *Salmonella suipestifer* infection, in Cecil, R. L.: *Textbook of Medicine*, 7th ed. Philadelphia: Saunders, 1947, p. 236.
8. WALTER, H., JR.: Food poisoning, in Bockus, H. L.: *Gastroenterology*. Philadelphia: Saunders, 1946, **3**, 1039.
9. SMITH, L. A.: *Salmonellosis: experiences in military and civilian practice*. *Gastroenterology*, 1947, **9**, 551.

SCIRRHOUS CARCINOMA OF THE BREAST

Report of a Case

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THE following case presentation concerns a 79-year-old white woman whose death resulted from metastatic scirrhous carcinoma of the breast 18 years after surgical removal of the original lesion. The malignant process was clinically silent for 17 years postoperatively, and, when it finally reappeared, simulated carcinoma of the rectum. This case illustrates the protean character of cancer, and the diagnostic difficulties encountered in distinguishing malignancies arising from 2 or more organs, from delayed metastases.

When judged by the criteria of Geschickter¹ this case falls into the most favorable group, in which he found 73.5 per cent of 5-year survivals. At the time of operation the tumor was less than 1 cm. in size, had been known to be present but briefly, and had given rise to no discernible metastases. In a series of 326 patients operated upon for various types of breast carcinoma with metastases, Lewis and Rienhoff² found 6 to be alive after 20 years. Whether or not they eventually died from their breast cancer is not known. These authors concluded that although many patients are free from "clinical cancer" for years postoperatively, it is questionable whether they are ever fully cured in the pathologic sense. They also reported that a local recurrence of breast cancer postoperatively implies a poorer prognosis than do remote metastases.

REPORT OF CASE

Mrs. A. H. first came under my observation on December 28, 1947, when she complained principally of progressive generalized weakness and swelling of the extremities. The following past history was obtained

from the patient, her former physician, and previous hospital records.

Nothing of medical significance occurred until March, 1928, when at the age of 59 she was hospitalized for chronic cholecystitis. A cholecystectomy and appendectomy were performed, and she recovered uneventfully. In March, 1930, a small, firm, painless lump the approximate size of a nickel was discovered in the outer aspect of the left breast. No palpable enlargement of the axillary glands was present. The patient was immediately hospitalized and a left mastectomy performed; frozen sections revealed scirrhous carcinoma. The axilla was searched for metastases but none were found. The small tumor mass, 0.5 cm. in diameter, consisted grossly of firm white tissue which puckered on sectioning; histologically dense connective tissue with cords and small clumps of malignant cells were seen. The pathologic diagnosis was scirrhous carcinoma of the left breast. The outlook was considered excellent.

The patient was apparently well for 17 years. Then in March, 1947 she was stricken with an acute episode of generalized abdominal pain which persisted for 18 hours and was accompanied by vomiting. No noticeable weight loss had occurred prior to this attack, but bowel function had been irregular. She had complained of flatulence and loose stools for several months, but had observed no melena or bright red blood. Physical examination revealed a rectal mass 1 finger's length from the anus. It was reported as firm, adherent to the sacrum, and almost completely obstructing the intestinal lumen. A barium enema and roentgenologic study on March 26, 1947, demonstrated a constant annular narrowing of the upper rectum. The lower lumbar spine and pelvis were described by the roentgenologist as having the mottled appearance characteristic of metastases. These osseous lesions were presumed to be recurrences of the breast cancer removed in 1930. Barium meal studies were subsequently performed, and the upper alimentary canal was reported to be entirely normal. On April 15, 1947 the patient was hospitalized with the principal diagnosis of partial intestinal obstruction caused by carcinoma of the rectum. Apparently the roentgenologist's opinion concerning the nature of

the osseous metastases, as being probably secondary to a mammary tumor, was ignored. A left lower quadrant colostomy in 2 stages was undertaken as a palliative measure. The rectal lesion was considered inoperable. Biopsy specimens obtained per rectum were reported to consist of normal mucosa; nevertheless, it was still felt that a primary rectal tumor existed. One month after operation the patient was discharged from the hospital with the colostomy functioning satisfactorily.

By June, 1947 slight weight loss had occurred and the rectal mass was felt to be larger and more nodular than on earlier examinations. During the ensuing months anorexia, edema of both upper and lower extremities, and generalized "neuritic" pains developed. By December, when I first saw the patient, her discomfort had been further increased by dysphagia, frequency of urination, and loss of the control of the urinary bladder. Physical examination at that time revealed a markedly emaciated, feeble, elderly woman. Her right hand and forearm and both lower extremities up to mid-thigh were swollen with pitting edema. Although up and about part of the time, she fatigued rapidly and was dyspneic even at rest. Inspection of the head and neck disclosed no abnormalities. Scattered crepitant inspiratory and expiratory rales were audible in both lower pulmonary fields, and the classical signs of pleural effusion were present in the right base. The cardiac apical impulse was visible at the fifth intercostal space 1 cm. to the right of the midclavicular line. The cardiac rate was 96, and the rhythm was regular. A soft, blowing systolic aortic murmur was detected and considered to be either hemic or secondary to dilatation of the aorta, since an arterial tension of 170/92 seemed to eliminate the possibility of aortic stenosis but fitted perfectly with a relative stenosis due to dilatation of the arch. Numerous firm, discrete lymph nodes were palpable in both axillae, but thorough examination of the atrophic right breast and the left anterior chest wall revealed no tumor masses or altered tissue mobility. The left mastectomy scar was smooth and well healed. No abnormal abdominal masses or tenderness were noted. The colostomy in the left lower quadrant functioned poorly, evacuations being unformed, foul, and excessively frequent. Digital examination of the rectum revealed the firm, painless, obstructive lesion previously described. Routine laboratory studies verified the clinical impression of marked anemia but were otherwise within normal limits.

The above symptomatology and physical findings were ascribed to carcinomatosis, the original lesion presumably being in the rectum. At this time no data other than the patient's statements and my observations were available. The anasarca was considered to be due principally to malnutrition, with cardiac decompensation

and lymphatic obstruction playing minor roles. Full digitalization and sodium chloride restriction produced slight temporary relief, but the clinical course was rapidly downhill despite all supportive therapy. After the patient's death on January 24, 1948 an autopsy was performed by Dr. H. H. Bullard, pathologist, Suburban Hospital, Bethesda, Maryland. His findings are presented below.

Anatomic diagnosis:

Cholecystectomy, appendectomy, and healed surgical scar (operation, March, 1928).

Left mastectomy with removal of the left pectoral muscles and healed surgical scar (operation, March, 1930, for carcinoma of the breast).

Growth of recurrent scirrhous carcinoma of the left breast in the tissues as follows:

- (a) Lymph nodes and lymphatics of the axillae, thorax, upper abdomen and pelvic cavity;
- (b) Pleura, pericardium, and peritoneum, and particularly in the lymphatic vessels of localized areas of these membranes;
- (c) Lungs, walls of the small bronchi and walls of the small blood vessels of the lungs;
- (d) Ribs, scapulae and centra of the lower spine;
- (e) Connective tissue and smooth muscle of the stomach, urinary bladder and rectum with resulting stricture of the rectum;
- (f) Very slight growth of tumor in the right breast, adrenals and periportal tissue of the liver (small microscopic foci).

Colostomy (left lower quadrant) (operation, April, 1947, for rectal obstruction).

Generalized arteriosclerosis (moderate), senile emphysema of the lungs, dilatation of the heart (slight, weight 260 Gm.), moderate passive hyperemia of the lungs, liver and spleen, hydrothorax (350 c.c. right, 520 c.c. left), atelectasis, bronchopneumonia (slight), edema of the lungs (slight), and anasarca.

Apical scars of both lungs. Fibrous adhesions of the pleura and peritoneum (slight). Small benign papillary adenoma of the endometrium.

Notes on autopsy:

Poorly nourished elderly woman. Body length 62 inches, body weight about 90 pounds. Lesions present as stated in above diagnosis. Several large firm tumor nodules (1 to 2 cm.) are present in the lymph nodes and adjacent tissues of both axillae. Numerous large firm tumor nodules (1 to 3 cm.) are distributed along the shafts of ribs 4 to 11 on both sides. In the larger nodules the bone tissue is almost completely destroyed and the tumor growth also in-

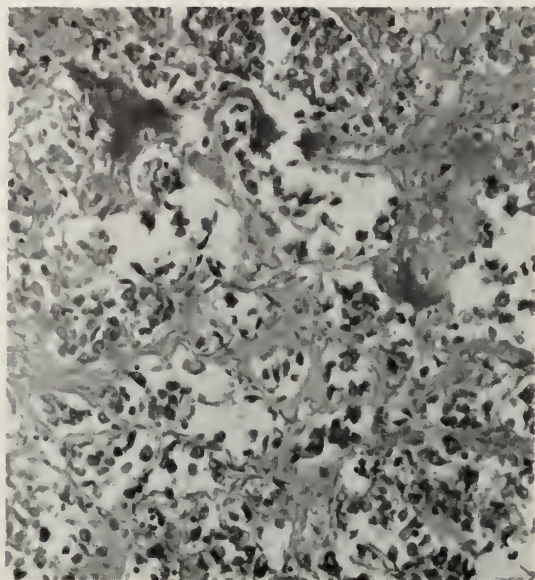


FIG. 1. Photomicrograph of rib nodule showing infiltration by malignant cells. Magnified 80 times.

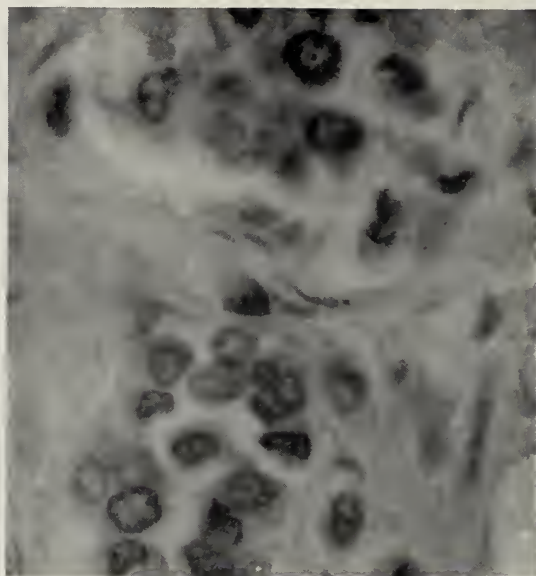


FIG. 2. Same as figure 1, magnified 675 times

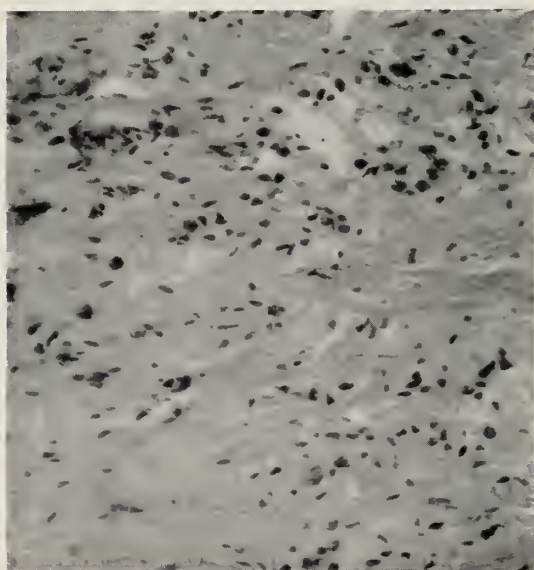


FIG. 3. Photomicrograph of muscularis of rectum showing generalized invasion by malignant cells. Magnified 150 times.

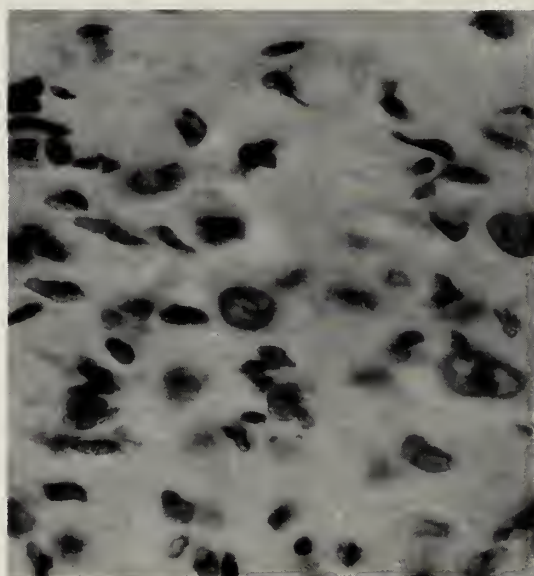


FIG. 4. Same as figure 3, magnified 675 times

volves adjacent soft tissues. Similar large tumor nodules are found in both scapulae and smaller nodules are seen in the lower spine. A few small nodules (2 mm. or less) are present in both lungs, and the walls of bronchi and blood vessels of the lungs are extensively thickened by diffuse tumor growth. The serous surfaces of the heart, lungs, and stomach and

those of the pelvic cavity are opaque and slightly thickened by tumor growth, but gross nodules are not seen. The stomach and rectum are thick and inelastic from the tumor growth which does not appear upon the epithelial surfaces of the mucous membranes. There is a definite stricture involving nearly the whole length of the rectum. No diverticula or polyps

are present. There is no indication of a primary tumor of rectum, colon, stomach, ovaries, or uterus. Permission for examination of the brain not obtained.

Microscopic examination (figures 1, 2, 3 and 4):

The tumor cells are of epithelial structure, nearly uniform in size and of spherical, oval or polyhedral form. The cytoplasm is sparse and clear or finely granular, and the nuclei are moderately large and hyperchromatic. Very few mitoses are seen. There is a marked fibrous connective tissue reaction to the tumor except where the tumor cells are within the lymphatic vessels. The tumor grows in the tissues as isolated cells, slender and moderately coarse strands and less frequently as small islands. It grows extensively in the lymphatics but seems unable to form large invasive tumor masses in other tissues. Medullary carcinoma and adenocarcinoma are not seen. The mucous membrane of stomach, urinary bladder, and rectum are not involved or invaded by the tumor but there is an extensive growth of slender tumor strands in the lymphatics and smooth muscle walls of these organs.

Summary of autopsy:

Careful gross and microscopic examinations of the body show widespread tumor growth as indicated above. The cytology, histology, and distribution

of the tumor all indicate a recurrent scirrhus carcinoma of the breast. There is no indication of any other malignant tumor growth in the body.

SUMMARY

A case of metastatic scirrhus carcinoma of the breast simulating carcinoma of the rectum has been presented. The malignancy, having remained clinically dormant for 17 years, proved fatal 18 years after surgical removal of the original lesion. This should serve to remind us of the potentiality of long delayed metastases, particularly in mammary carcinomata.

The author is indebted to Dr. Jordan A. Hunt of Berwyn, Illinois, the Millard Fillmore Hospital, Buffalo, New York, and the MacNeal Memorial Hospital, Berwyn, Illinois, for information from their records.

BIBLIOGRAPHY

1. GESCHICKTER, C. F.: Diseases of the Breast. Philadelphia: Lippincott, 1943.
2. LEWIS, D., AND RIFENHOFF, W. F.: Study of results of operations for cure of cancer of breast. *Ann. Surg.*, 1932, **95**, 336.

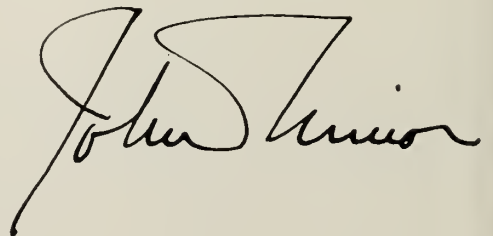
President's Page

IN THE GREAT TRADITION

As the doctor today sits at his desk receiving his mail he is flooded with reams and literally pounds of advertising "literature," and with samples weighing anywhere from a few grams to several kilograms, of new drugs and old drugs, good drugs and bad drugs. Beautifully illustrated brochures with highly expensive colored photography and pseudo-scientific descriptions of the value of the particular manufacturer's products abound. This is in the "great tradition" of American advertising and high-pressure salesmanship; but only a small percentage of it has relation to the science or art of medicine.

The time required for the physical disposition of this material to the waste basket,—sometimes with reluctance to discard such pretty pictures!—is a real consideration. Certainly if time were taken to peruse this material there would be no time left for sound professional reading. As to the drugs, some of them are useful, expensive, and needed by the sick. It seems a pity that so much of such substances as, for example, digitalis products, analgesic drugs, hormone preparations, and the like, should be wasted (as they are in large part) when the indigent sick and the hospitals, which are struggling against deficits, would have a significant addition to their drug supply were the useful products sent to their staffs alone, collected and turned in; or given to some suitable public agency.

Advertising is an essential part of our daily life, but one is often inclined to feel that if some of the funds were spent on hospital support, or other worthy objects, the end would be far more valuable. And the physician would not be tempted to get his medical knowledge from "detail men" and advertising "literature."

A handwritten signature in cursive script, reading "John H. Union". The signature is written in dark ink and is positioned in the lower right corner of the page.

Editorials

DRIVES*

The good citizens of the Washington area have become jaded with worthy causes. There is nothing wrong with the overwhelming majority of them except that there are too many. This has become evident because a number of really worthy causes have been unable to raise modest amounts of money from the general public. The multiplication of fund drives—many of them on behalf of medical causes—poses serious problems for their sponsors, the newspapers which publicize them, and the general public which is asked to contribute. It has reached a point where major fund drives must be carefully scheduled to avoid overlapping. And when a new cause appears, it is confronted with the problem of getting proper space on the calendar to avoid already existing drives.

Here are just a few examples of the calendar problem: The Community Chest Campaign hardly ends in November before the Christmas Seal Campaign heads into high gear along with a number of other Christmas-time drives. January is polio month as far as the fund-raisers are concerned. The heart people showed a good flair for publicity by timing their drive around St. Valentine's Day. This drive is squeezed in between polio and the American Red Cross, which gets under way traditionally in March. Extension of the Heart drive because it lagged so badly forced an overlap with the Red Cross drive. Then there is the Symphony drive, and

fund drives for some of the suburban hospitals are in progress or in the offing.

There are many other medical causes which are either running "educational" programs or appeals for funds. The advocate of a worthy cause may get quite indignant when a city editor is unable to promise daily stories and pictures on request. But if the city desks gave these fund drives the space that their sponsors request, space available for the day's news would be sharply curtailed.

There are consequences besides the impact on newspaper space and radio time. I will try to list a few of them as they occur.

Money.—The amount of money available for charity and good works is necessarily limited. It is apt to be distributed in accordance with the effectiveness of an organization's promotion campaign, rather than on the basis of need. And a law of diminishing returns begins to set in, leaving many worthwhile projects without necessary funds to operate.

Responsibility.—As drives multiply, it becomes more difficult to separate the sheep from the goats. Contributors cannot always learn how much of their money actually is spent for the cause.

Contributors.—More and more potential contributors are becoming annoyed at the continual pressure to which they are being subjected.

Research.—Much of the money being raised is used in specialized research projects. Is this specialization a good thing, or is it more in keeping with the needs of scientific research to avoid subdividing the areas of research?

*This is the thirty-first in a series of guest editorials by well known physicians and laymen. Mr. Gilbert has requested the editor of the ANNALS to state that his views do not necessarily reflect the views of *The Washington Post*.

What to do? Who is going to say whether this drive is more worthwhile than that one and face the ire of the sponsors of the one which might be told to stop collecting after a certain point? But unless some agency is set up to screen proposed fund drives, many of the good ones are going to go down with the bad ones.

Some of the questions that a screening agency should ask are: Is the cause worthwhile? Is it asking more money than it needs? How much money is used as a collection expense? What proportion of the funds raised goes outside of the area? What safeguards have been employed to see that the money is spent properly?

Perhaps one way out of the dilemma would be to expand the agencies which are already working in this field. There is the Community Chest, which brings together under one roof more than 100 separate agencies which have regularly raised funds in the Washington area. But the Community Chest has had its troubles. Some community groups have accused it of gathering together too many diverse groups. From a practical standpoint, however, it should be remem-

bered that some of these controversial agencies have a specialized appeal which would enable them to raise more than their Community Chest quota if they went out on their own. This controversy and the competition from non-Community Chest agencies have so embroiled the Chest that it has been unable to raise its minimum quotas in recent years. The Better Business Bureau does a good job in screening the fly-by-night fund drives and so does the District Medical Society with purely medical ventures.

From the standpoint of the city desk, it would be fine if the Community Chest, assisted by these organizations, and other interested community groups got together and screened all fund requests. But it will probably take an agency broader than the Community Chest to settle this problem in view of existing controversies and of the reluctance of such national organizations as the American Red Cross and the National Tuberculosis Association to cast their lots with the Chest.

BEN GILBERT

City Editor, The Washington Post

Reductio ad Absurdum

Were it not so tragic, it would be amusing to attempt to trace what passes for logic in the report to the President on "The Nation's Health."¹ But it is a serious matter when any consideration relating to the people's health has been made a political football.

It is always necessary for political advantage to indulge in the doubtful luxury of oversimplification. And now the public is being driven by every possible device to the fantastic belief that the principal thing required to improve the health of the people is the distribution of medical care under the auspices of the Federal Government. The remedy is stated as simply as that.

The report mentioned above takes cognizance

of various factors in the many-faceted problem of the approach to better health and prolongation of life. But after a tremendous build-up in the report for a balanced program, the Federal Security Administrator lets his distinguished party leader down with a resounding rhetorical thud by putting all his bets down on compulsory sickness insurance as the ultimate in the solution of our health problems. This shift of emphasis ignores all the really weighty factors in health statistics; but, of course, this was to be expected when a lay politician was placed above the U.S. Public Health Service, with many of his figures and conclusions fed to him by nonmedical statisticians of the Social Security Board, also under his control.

While there is no reference offered to support any of the figures in the report (except those

¹ Ewing, O. R.: *Nation's Health—A Ten Year Program: A Report to the President*. Washington, D. C.: Government Printing Office, September 1948.

regarding the appalling lack of basic sanitation services in the United States²—sewage disposal, water supply, milk and food inspection, and the like), let us not at this moment dispute the contention in the report that “with the knowledge and skills we now have” 325,000 of our 1,400,000 deaths per annum could be prevented. This could be true—give or take a few thousand.

Dr. Vlado A. Getting, Health Commissioner of the State of Massachusetts, is quoted as saying that 200,000 of these deaths would be prevented if the population of the United States were really covered by modern public health services.³ But we have been forced to admit that this service is not so provided. Out of about 147,000,000 people, 40,000,000 in 1,700 counties have no service that deserves the name, while less than 10,000,000 have professionally staffed full time health departments.⁴

No method of distribution of the medical care of the sick will reduce the number of people who get sick—and yet prevention of disease is fundamental.

It is a curious fact that in this field, the medical profession and the American Medical Association itself have asserted since 1884 the necessary interest of Government at all levels, Federal, state and local; and that after 75 years of Government effort—ever since the time of Theobald Smith—the fundamental deficiencies stated above are still present. These facts are proclaimed by the American Public Health Association, the American Medical Association, the National Congress of Parents and Teachers, the United States Public Health Service, and Mr. Oscar Ewing himself. And yet it is reasoned that Government should also take over the provision of medical care, although it has nowhere nearly covered fundamental needs in the public health field which has been its province so long.

In some areas the necessary qualification for being appointed as health officer is vote-getting power. Training in medicine or in the public health field is no requisite. So we see, acting as local health officers, plumbers, undertakers, lawyers, and real estate dealers. What that promises for administration of medical services is only too tragically clear.

Where emphatic reference is made in the report to an assumed great shortage of physicians, no great emphasis is put upon the much greater and much more fundamental shortage of trained public health personnel. At the time of this writing, there are eight vacancies for every available officer trained in public health.

Mr. Ewing's report places this fundamental need as his last health goal instead of *first*, which it logically is.

From 1884 to 1949 the American Medical Association has fostered local and national enactment of public health laws with the knowledge that this was the most effective weapon in the fight for health, and it currently supports S.522, a bipartisan bill designed to stimulate real public health coverage at the local level.

The report further states that of 100,000 deaths annually from accident, 40,000 could be prevented. The House of Delegates of the American Medical Association last December instructed the Board of Trustees to “stimulate research in accident prevention.” Since it has now been shown that accidents rank first as a cause of death⁵—ahead of every disease—from the standpoint of number of years of productive life lost, accident prevention is of paramount importance.

No method of distribution of medical care to those already injured will materially reduce the number of persons who are killed in accidents.

Of 325,000 “preventable” deaths, therefore, 200,000 are considered “preventable” through

² Ewing, O. R.: See ref. 1, pp. 23-4.

³ Pollack, J. H.: Shame of our local health departments. *Collier's*, January 22, 1949.

⁴ Emerson, H.: Local health units for nation. *Am. J. Pub. Health* (supp.), 1947, 37, 1.

⁵ Dickinson, F. G., and Welker, E. L.: What Is the Leading Cause of Death? Two New Measures. *Bulletin 64, Bureau of Medical Economic Research, AMA*, 1948.

modern public health services and 40,000 through accident prevention. However, it is convenient to make the practicing physician the political whipping-boy for these failures, Governmental and otherwise.

This leaves Mr. Ewing about one fourth of his so-called preventable deaths to account for. He does not say—except possibly by implication—that these deaths are due to lack of medical care. Of course, he could not demonstrate it. But of such stuff is propaganda for compulsory sickness insurance and political medicine compounded.

Many other problems, including medical education, hospital facilities, ancillary personnel and others, will not be dealt with in this editorial;

nor will the important problem of provision of medical services for all be covered, other than the references to it above and the further statement that the proponents of state socialism in medicine view with alarm the growth of voluntary schemes for such provision. In fact, if they do not get their legislation in the next three to five years, they know they will never get it.

The purpose of these lines was to highlight, as indicated in the title, the absurdity of the logic of the report to the President! When these matters are once fully understood by the electorate, socialized medicine will be only a memory.

H. P. R.

ANESTHESIOLOGY AND SAFE SURGERY

Anesthesia begins to be Anesthesiology when the studied concern for over-all patient safety exceeds that for simple pain relief and relaxation. A century ago the hazards of shock, hemorrhage and infection made major surgery a desperate expedient to save life. Today almost as many people undergo surgery as ride in airplanes in this country. This is because surgery has been made relatively safe as well as painless.

Four separate developments have led to this age of safe surgery. Two of the four involve anesthesiology. Surgical anatomy paved the way for effective hemostasis. Bacteriology provided the background for successful asepsis. The introduction of practical anesthesia largely removed the danger of psychic shock. These three developments brought surgery into a new phase and confronted it with a complex new problem.

Many more patients were willing or anxious to have the benefits of painless surgery. Surgeons expanded their field of activity to include many cases previously by-passed. Thus anesthesiologists began to produce many more dangerous or even fatal physiological upsets in the effort

to shoulder their share of increasing responsibility. The exigencies of the situation caused the introduction of new drugs and new methods of anesthesia aimed at avoidance of these disturbances in vital physiology. The elaboration of machines to assume varying degrees of physiological control attracted wide interest. The assumption of technics developed elsewhere in medicine, such as blood transfusions and related replacement therapy, has played a big part in this evolution. As these varied efforts have begun to succeed in maintaining a nearly normal and balanced physiology during the surgical period, the specialty of Anesthesiology has been born.

We are just emerging from the period of pre-occupation with gadgets, drugs and miracle technics. Anesthesiology can come of age only when the profession and the public accept all these things as means to an end, as tools of the trade. Only an anesthesiologist can use them to proper advantage and here, as in every other specialty, it is the man on the job that counts.

The demands made by safe surgery upon anesthesiology lead to some such definition as

this: Anesthesiology is that branch of medical science and medical practice which offers pain relief to the patient and relaxation to the surgeon while dealing with the diagnostic and clinical procedures for maintaining a physiology as near normal as possible in patients undergoing surgery or childbirth.

Such a definition outlines the broad objectives of the specialty. Such a recognition of goal suggests methods to be employed in approaching it. The control of physiological behavior is dependent first of all upon accurate running diagnosis of function.

There is urgent need for clinical instruments to measure accurately many of the things now the objects of guesswork. Among these are quantitative measure of pulmonary ventilation, single lead measure of heart function, continuous measure of blood pressure and peripheral circulatory efficiency, and measure of oxygen saturation in selected tissues. These instruments must be simple enough in application and use, cheap enough, and harmless enough that they can be used in routine clinical cases. Such a setup would add greatly to the present safety value of anesthesiology to surgery.

However, it must not be imagined that such aid to safe surgery will decrease the premium

which has always been attached to good surgery. In the extension of operability for many conditions during the last decade this danger has become real. Inefficient surgical teamwork, indecisive surgery, and too great a concern with unimportant detail in parts of the operation which should be routine must not be mistaken for careful surgical dissection and atraumatic, unhurried consummation of the procedure. More and more it will be recognized that the safest surgery is that in which the surgeon and anesthesiologist are equally good, and where the concern is with their work more than with the technics and tools which they are using only as an aid to their essential teamwork.

It follows, then, that the anesthesia, which we now have generally, will become anesthesiology as the concern and practice shift toward maintenance of physiological balance. It is certainly true that the safety value of this new anesthesiology will be augmented by the development and clinical use of better instruments to measure all of the oxygenation mechanisms. Finally, the greatest safety in surgery will come from the close teamwork between the two specialties.

D. S.

In and Out of Focus

BY THE OBSERVER

The AMA's Educational Campaign

A capacity audience was on hand at the headquarters of the American Medical Association in Chicago on February 12 to learn the details of the Association's campaign against compulsory health insurance. Invitations extended previous to the meeting suggested that only designated state chairmen and secretaries of state medical associations would be

present. Apparently most of those who had any affiliations with the Association or its constituent and component societies had insisted upon being present.

The formal program covered many aspects of the medical situation. Speakers and their subjects were:

Dr. George F. Lull, M.D., Secretary and General Manager of the American Medical Association, "Report

on the Membership Assessment"; Mr. Clem Whitaker, Director, National Education Campaign, "The Plan of Battle" (The National Campaign Policies); Miss Leone Baxter, General Manager, National Education Campaign, "What Will We Do with the Doctor's \$25?" (The National Campaign Plan of Procedure); Mr. Larry Rember, Director of Public Relations, American Medical Association, "Every Doctor a Doctor of Public Relations"; Dr. Joseph S. Lawrence, M.D., Director, Washington Office, American Medical Association, "The Outlook in Washington"; Mr. John W. McPherrin, Editor, *The American Druggist*, "What Druggists Think of the Truman-Ewing Compulsory Health Insurance Program"; Miss Elizabeth Wilson, author and student of Britain's Socialized Medicine Experiment, "The British Story—First Hand"; and Mr. Charles S. Nelson, Chairman, Medical Society Executives' Conference, "State-side View of the National Campaign."

Naturally interest centered in the talks given by Mr. Whitaker and Miss Baxter (Mrs. Whitaker), who are directing the AMA's "crusade." Both gave a good account of themselves, impressing those present with their genuine ability and zeal. The program which they offered was received with much more than perfunctory enthusiasm.

There was a flurry of excitement when a statement signed by 136 physicians protesting the AMA's policies and the reply of the Association's Board of Trustees were read. (See pages 151-3 for complete text.) The protesting group, which included Dr. George Baehr, former President of the New York Academy of Medicine, Dr. Edwards A. Park of Baltimore, Dr. W. Barry Wood of St. Louis, Dr. Hugh J. Morgan, of Nashville, and many other prominent physicians disapproved the use of funds derived from the recently levied assessment "for propaganda and legislative lobbying instead of developing a comprehensive medical care program." The Board denied that the funds were to be so used.

One charge which especially irritated the Board was that the AMA was unwilling to "acknowledge the need for improvement" in medical care. "This statement," the Board said, "is without any support of actual evidence."

No effort was made to determine the sentiment of those present at the meeting. Several with whom your Observer talked felt the Board's reply was unnecessarily sharp and, in some respects, unjust. It should have taken into account, they argued, the sincerity of the signators, all of whom are outstanding physicians.

Returning to Mr. Whitaker, physicians here and elsewhere will know a lot more about him as weeks go by. He is a dynamic individual, intent upon getting his message to the "grass roots." In this undertaking, he insists, he must have the coöperation of all physicians.

No pussyfooter, he challenged the charge that "the AMA planned to invade Washington with a high-powered lobby and a \$3,000,000 'slush fund'." He said this was "absolutely false" and a "smear attack."

"The AMA," he insisted, "isn't embarking on any high-pressure lobbying campaign in Washington nor is there any 'slush fund.' The socializers in the Office of Social Security, who have used their Government facilities and Government funds to lobby Congress at the taxpayers' expense, are simply sending up a smoke-screen against AMA as a cover for their own highly questionable operations, and the people need to be told that.

"We're not just working to beat a compulsory sickness insurance bill. We're going to work together to resolve a program. We're going to do something about taking the economic shock out of illness!

"We are going to do everything in our power to acquaint the American people with the desirability and the availability of prepaid, budget-basis medical care. We believe in voluntary health insurance, not just as a political expedient, but as a sound development in medical economics.

"More than 52 million Americans already have decided that the voluntary way is the American way to cope with this problem—and have enrolled in voluntary health insurance systems.

"The tremendous growth of the voluntary systems has come in a very short span of years—and has been one of the most spectacular economic developments in our time."

Present at the meeting, representing the Medical Society of the District of Columbia,

were Dr. Herbert P. Ramsey, State Chairman, and Theodore Wiprud, Secretary of the Society.

Text of the Program of the American Medical Association for the Advancement of Medicine and Public Health, copies of which were distributed during the meeting, follows:

A FEDERAL DEPARTMENT OF HEALTH

1. Creation of a Federal Department of Health of Cabinet status with a Secretary who is a Doctor of Medicine, and the coordination and integration of all Federal health activities under this Department, except for the military activities of the medical services of the armed forces.

MEDICAL RESEARCH

2. Promotion of medical research through a National Science Foundation with grants to private institutions which have facilities and personnel sufficient to carry on qualified research.

VOLUNTARY INSURANCE

3. Further development and wider coverage by voluntary hospital and medical care plans to meet the costs of illness, with extension as rapidly as possible into rural areas. Aid through the states to the indigent and medically indigent by the utilization of voluntary hospital and medical care plans with local administration and local determination of needs.

MEDICAL CARE AUTHORITY WITH CONSUMER REPRESENTATION *

4. Establishment in each state of a medical care authority to receive and administer funds with proper representation of medical and consumer interest.

NEW FACILITIES

5. Encouragement of prompt development of diagnostic facilities, health centers and hospital services, locally originated, for rural and other areas in which the need can be shown and with local administration and control as provided by the National Hospital Survey and Construction Act or by suitable private agencies.

PUBLIC HEALTH

6. Establishment of local public health units and services and incorporation in health centers and local public health units of such services as communicable disease control, vital statistics, environmental sanitation,

control of venereal diseases, maternal and child hygiene and public health laboratory services. Remuneration of health officials commensurate with their responsibility.

MENTAL HYGIENE

7. The development of a program of mental hygiene with aid to mental hygiene clinics in suitable areas.

HEALTH EDUCATION

8. Health education programs administered through suitable state and local health and medical agencies to inform the people of the available facilities and of their own responsibilities in health care.

CHRONIC DISEASES AND THE AGED

9. Provision of facilities for care and rehabilitation of the aged and those with chronic disease and various other groups not covered by existing proposals.

VETERANS' MEDICAL CARE

10. Integration of veterans' medical care and hospital facilities with other medical care and hospital programs and with the maintenance of high standards of medical care, including care of the veteran in his own community by a physician of his own choice.

INDUSTRIAL MEDICINE

11. Greater emphasis on the program of industrial medicine, with increased safeguards against industrial hazards and prevention of accidents occurring on the highway, home and on the farm.

MEDICAL EDUCATION AND PERSONNEL

12. Adequate support with funds free from political control, domination and regulation of the medical, dental and nursing schools and other institutions necessary for the training of specialized personnel required in the provision and distribution of medical care.



Eisenhower on Paternalism

What makes a statement newsworthy? Very often it is not its content. Many more of us would make the headlines if that were true. Most of us must be content to say, "That is what I said." As always names make news. What a world figure has to say

may literally be heard around the globe while the ordinary man's pearls of wisdom go unnoticed except by a few intimates.

There is no more apt illustration of this than the warning uttered by General Dwight D. Eisenhower, President of Columbia University, when he addressed young student leaders (preparatory and high school boys) at a three-day Columbia College Forum on Democracy. General Eisenhower is quoted in the press as saying:

"There is a kind of dictatorship that can come about through a creeping paralysis of thought, readiness to accept paternalistic measures by the Government, and along with those paternalistic measures comes a surrender of our own responsibilities and, therefore, a surrender of our own thought over our own lives and our own right to exercise our vote indicating the policies of this country.

"If we allow this constant drift toward centralized bureaucratic government to continue, it will be expressed not only in the practice of laying down the rules and laws for governing each of us—our daily actions—to insure that we do not take unfair advantage of our comrades and other citizens, but finally it will be the actual field of operation.

"There will be a swarming of bureaucrats over the land. Ownership of property will gradually drift into that central government and finally you have to have a dictatorship as the only means of operating such a huge and great organization. I believe that it is things such as that we must watch today if we are going to be true to the standards that Lincoln gave to all of us."

In making these observations, General Eisenhower may have had no thought of medicine—he was perhaps viewing the picture in broader terms. However, medical leaders have expressed the same views on a number of occasions. But their views seldom made the headlines, either because they were not sufficiently newsworthy or because they were believed to be prompted by selfish considerations. In the latter event what they had to say on the subject was put down as propaganda. That, of course, will not be the case with General Eisenhower. His views will be given a respectful hearing in all parts of the country, which should in this

instance please not only doctors but hundreds of thousands of Americans who are concerned about the future.

★

Orientation Lectures II

There was considerable skepticism when the Membership Committee initiated the Orientation Lectures a year ago. Applicants and recently elected members protested mildly against being required to attend. A few stated that they would not participate. However, a majority saw the potential value of the lectures. Their faith was well rewarded for in every sense of the word the lectures were a success. Few projects undertaken by the Society have won such unanimous approval.

The lectures will be continued this year under the sponsorship of the Board of Censors. As was the case last year, applicants and members whose probationary year has not been completed will be required to participate. Others are not only invited but will be most welcome. In fact, the Board has expressed the hope that those required to attend will be augmented by a substantial number of long-time members. They are certain to profit far beyond their expectations.

It has been tentatively agreed that the subjects shall be the same as last year: Medical Organization, Medical Ethics, Medical Malpractice Suits, and Medical Economics and Public Relations. However, there may be some changes. Speakers have not yet been chosen nor have the dates when the lectures will be presented been decided upon. When plans have been completed, details will be announced in a notice to the membership. It is hoped that the lectures can be scheduled for early April.

The Board of Censors consists of Dr. Walter Atkinson, *Chairman*, and Drs. William Ross Morris and Michael J. McInerney. Their primary function is to investigate applicants to determine their desirability as members and

submit their recommendations to the Executive Board. Attendance at numerous and sometimes long meetings is required. Members of this Board, more than any other body in the Society, are responsible for the quality of its membership. Sponsorship of the above lectures is an added responsibility for them.



*Conference of
Physicians'
Secretaries*

In the last issue of the *MEDICAL ANNALS* your Observer commented on reports that many physicians consign their mail indiscriminately to the wastebasket. While irritation with the flood of unimportant matter was understandable, he said it was exceedingly unfortunate that communications, bulletins and publications from the Medical Society were often thrown away. Much of the information contained in them was of personal value to physicians. Furthermore, the seriousness of the medical situation demanded that physicians be informed and capable of discussing current medical problems intelligently. How much of an impression this plea made remains to be seen.

Since the foregoing comments appeared, your Observer has proposed a plan which should materially improve this situation. He believes his proposal will gain wide acceptance and approval among the physicians in Washington. There is nothing very new about it because similar projects have been undertaken elsewhere, notably in Milwaukee, Wisconsin, where it is sponsored by the county medical society.

The proposal is to arrange a conference for physicians' secretaries for the purpose of informing them in regard to the organization-structure of the Society; the benefits available to its members; the opportunities for physicians to improve relations between the public and the medical profession; and the administrative aspects of *MEDICAL SERVICE OF THE DISTRICT OF COLUMBIA* of interest to doctors.

It has been tentatively decided to devote two

evenings, late in March, to the conference. Definite dates will soon be decided upon and other details worked out. A modest registration fee is contemplated to pay for the cost of printing the proceedings. As nearly all of the material presented will be of a factual nature, it will be valuable for reference purposes.

If experience elsewhere is any criterion, the conference should be enthusiastically received by hundreds of secretaries. Benefits will, of course, accrue not only to them but to their physician-employers, many of whom leave the administration of their business affairs to their secretaries. Inevitably interest will be stimulated in the Society and its activities. It is therefore expected that physicians will give wholehearted support to this undertaking and will encourage participation of all those who do secretarial work in their offices.

Consideration will undoubtedly be given to the desirability of making the conference an annual event. This, of course, is a matter which can be discussed at the conclusion of the conference when those who participate will have an opportunity to express their views as to its value.



On June 1 last year your Observer had completed ten years of service with the *Medical Society*. They had been exceedingly interesting, sometimes exciting years which passed very rapidly; in fact, so rapidly that it seemed only yesterday that he had assumed his duties. He was aware, of course, that time had wrought many changes. Perhaps the thing that impressed him most was the number of prominent physicians who had passed from the scene during this period. Nearly forgotten, their names mean little to the majority of the members of the Society. Considering their eminence and the influence they exerted in their lifetimes, this seems hardly possible. But as Dr. Vincent T. Williams, Editor of the *Bulletin of the Jackson County (Mo.) Medical*

*"...an
Efficient
Equalizer..."*

Society, so well puts it, "Death, somehow, proves to be quite an efficient equalizer."

"We will lay big odds," writes Dr. Williams in the January 22 issue of the *Bulletin*, "that if anyone were to canvass all practitioners in this town [Kansas City] who are under forty-five years of age, he would find not ten per cent who remember the name of B——. Yet this man was an author of surgical textbooks, an internationally known writer, and was a big-shot of his day."

"We are impressed (and shocked) recently with the most poignant proof of this fact when we overheard one of our younger members asking 'Who was he?' concerning a recently-deceased member who had left the fold of practitioners only a few years ago. In other words, within the span of about five years, the memory of this erstwhile leader in our profession had all but disappeared."

"Patients, too, soon forget. Almost immediately, even though the departed member was prominent in our ranks, the public forgets. In ten years, the life-span of good, hard work disappears in total and complete oblivion."

"With very few exceptions, this is the fate of each of the group which act (or, at times, seems to act) as self-acclaimed supermen. Occasionally, one of our crowd does try to place a younger man or two on his shoulders, tries to boost him up in the profession. And, this monument does remain behind to nurture a memory. Again, one of us does develop a new drug or technique or method which remains as a living testimonial. And sometimes a physician devotes enough energy, talent and time to projects entirely without the realm of the healing arts which leaves a stamp of accomplishment for posterity to witness."

"These are exceptional, however, for we find the vast majority of physicians are not long remembered after they retire or die. The many thousands of friends or acquaintances remain only inversely proportional as the months and the years increase. The simulated loyalty and affection which during the practitioner's life seemed immeasurable soon are dissipated into forgetfulness, nothingness. And the one who previously apparently occupied a large niche in the world of his day is soon forgotten."

"This is written in an effort to orient anyone in our profession who might have difficulty in determining accurately the matter of his importance."

One of the remarks heard most frequently at meetings of the Medical Society is, "I don't know anyone here any more!" This plaint is voiced not only by elderly practitioners but by

those of early middle age who have been members for some years. What has happened? Following the close of the recent War greater changes took place in the Society's membership than in the ten years which preceded it. Six to seven hundred "new" members established themselves in Washington. Not a few of them are now on the way to becoming leading physicians in the community. Older leaders are, for one reason or another, gradually giving way to a new generation.

Fortunately, there is a remedy for those who "don't know anyone any more." They should make it a point to get acquainted with their colleagues—the "new" members especially. An interest in their affairs will bring prompt and favorable response. There is no better way in which to carry-over into another generation and not be too promptly forgotten.

★

What Would Happen? "There is nothing wrong with 'health insurance' as such; in fact, it's a fine thing, when

privately and efficiently operated," asserts Philip W. Porter of the *Cleveland Plain Dealer*. Commentator Porter cites as examples the development of voluntary hospital and medical plans in Cleveland. These plans, he says, are "so widely used by Clevelanders that there is not enough hospital space to care for all those eligible to use them." What he likes best about them is the fact that "no one is required to pay the small monthly fee unless he wishes to. He is not taxed, and his employer is not taxed. The managers and clerks of the association are not subject to political hiring by the Government. The association makes no profit and operates efficiently in the public service—or else! You squawk directly to its office, not to your Congressman or some buck-passing bureaucrat."

What would happen to these plans if the Government took over?

"These plans would either be gradually ab-

(Continued on page 170)

AMA POLICIES CRITICIZED*

Numerous comments by medical colleagues in various parts of the country have convinced the undersigned physicians that a large segment of the medical profession is not in sympathy with many policies and actions of the American Medical Association on the extension of medical care. The \$25 assessment levied in executive session on all members of the Association will place several million dollars at the disposal of its officials. Only an indefinite and constructively inadequate program has been presented outlining the way in which this huge fund will be used. The charge to Association officials is exceedingly vague, leaving the methods to be employed at their discretion and subject to the possibility of grave abuse.

If the funds are to be used for propaganda and legislative lobbying instead of developing a comprehensive medical care program, we are heartily opposed to the levy and shall refuse to pay it, and we urge all physicians with a sense of responsibility for the future of American medicine to register their protest. The significance of standpat propaganda will not escape the public. This will add to the already firmly rooted suspicion that the Association's objectives are primarily economic and selfish and will further weaken its standing as an altruistic agency devoted to the improvement of medical practice, research and education. We would gladly contribute if the funds were to be used to develop a carefully worked out, comprehensive plan to extend and improve medical care and education.

We believe that the fundamental failure of the American Medical Association in its attitudes and policies bearing on the general problem of medical care has been its unwillingness fully to acknowledge the need for improvement and to seize this particularly favorable opportunity to come forward with a comprehensive, constructive program which would be of clear advantage to the public as well as to the profession itself. Further, we believe that in the present crisis the obvious direct way to avoid an all-inclusive compulsory health insurance and to make secure the valuable features of our present system is for the Association to develop a program that will be manifestly so considerate of the needs of the people and at the same time so eminently fair to the

interests of the physicians that it will command general approbation.

The undersigned believe that now is the time to voice our disapproval of the leadership and policies of the Association on the extension of medical care.

Warfield T. Longcope
Samuel A. Levine
S. Burt Wolbach
Eugene F. DuBois
Harold G. Wolff
David Barr
Ephraim Shorr
Paul Reznikoff
Earl Chapman
Nathaniel W. Faxon
Stanley Cobb
A. A. Weech
Eugene B. Ferris
James L. Wilson
M. E. Lapham
Alfred E. Cohn
Duncan E. Reid
Chester S. Keefer
Samuel Z. Levine
Thomas M. Rivers
Thomas A. C. Rennie
Harold L. Temple
Allen O. Whipple
Joseph Aub
Henry K. Beecher
James C. White
Jacob E. Finesinger
A. B. Sabin
Maurice Levine
R. V. Platou
Alton Ochsner
Julius L. Wilson
Thomas L. Findley
T. E. McKell
Paul J. Murison
Albert J. Sullivan
L. S. Meriweather
W. Barry Wood
William M. Allen
Theodore E. Walsh
Carl V. Moore
Rustin McIntosh
Robert Ward
William C. Von Glahn
James Howard Means
Edith M. Lincoln
Robert Loeb
A. J. Kauvar
Daniel C. Darrow
Howard H. Mason
Randolph West
Albert R. Lamb, Sr.

George H. Humphreys
C. G. de Gutierrez-Mahoney
H. M. Keith
E. G. Hall
Paul A. O'Leary
E. G. Wakefield
Clark Dixon
Alfred Uihlein
James L. Gamble
William Parson
Thomas E. Weiss
M. B. Burris
Edgar H. Little
Theo. L. Soniat
Harry L. Alexander
Edwin F. Gildea
Alexis F. Hartmann
L. Emmett Holt, Jr.
John H. Mulholland
W. B. Studdiford
S. Bernard Wortis
William S. Tillett
Currier McEwen
S. S. Kauvar
Grover F. Powers
Henry G. Poncher
Dana Atchley
Fordyce B. St. John
Virgil G. Damon
John S. Lockwood
Samuel Amberg
Charles Watkins
Henry M. Helmholtz
Harold Lillie
S. B. Mills
Bert E. Hempstead
Helen B. Taussig
Francis F. Schwentker
Alan Guttmacher
William S. Ladd
Edwin Crosby
Milton E. Kirkpatrick
Myron C. Wegman
Hugh Morgan
Harry H. Gordon
Chester M. Jones
Oliver Cope
Hugh McCulloch
G. E. Wakerlin
Percival Bailey
W. W. Morrison
George Whipple

* Reprinted from the *Journal of the American Medical Association*, 1949, 139, 532.

John J. Morton
 John Romano
 I. S. Ravdin
 Francis C. Grant
 Nicholson J. Eastman
 Wilburt C. Davison
 Amos Christie
 James R. Dawson, Jr.
 James Bordley
 Clinton VanZandt Hawn
 J. E. Edwards

Evarts Graham
 Louis Hellman
 Paul Harper
 John J. Wittmer
 Lawson Wilkins
 Edwards A. Park
 Samuel Wolman
 R. L. Simmons
 Sidney S. Chipman
 Curtis J. Lund
 Roy R. Grinker

Walter Bauer
 Fuller Albright
 Chester Frazier
 Stanley Gibson
 Francis L. Lederer
 George Baehr
 Murray H. Bass
 William S. McCann
 Carl M. Wilson
 Joseph Stokes
 Grier Miller

Alexander J. Schaffer
 Grant Taylor
 Eugene A. Stead, Jr.
 J. Cyril Peterson
 Ernest A. Goodpasture
 T. Campbell Goodwin
 Francis F. Harrison
 George Minot
 Samuel Claussen
 I. Ogden Woodruff
 A. McGehee Harvey

REPLY BY AMA OFFICERS AND TRUSTEES

The preceding statement of protest requires an official reply by the Board of Trustees, since it is essentially a criticism of policies adopted by the House of Delegates, the representative body of the American Medical Association. The protest voices moreover distrust of the competence of the Board to administer the funds developed by the special assessment and emphasizes disapproval by the signers of the leadership and policies of the Association related to the extension of medical care.

Before analyzing the protest, the Board of Trustees calls attention to the fact that not one of the signers of the protest attempted, through direct inquiry to the headquarters or to any official of the Association, to determine:

1. Whether or not the American Medical Association has a program for the extension of medical care.
2. Whether or not measures were in effect to promote the activation of such a program.
3. The activities related to determining existing unmet needs for medical care.
4. The relationships established by the Association with organizations representing the farmer, labor, education, welfare and similar groups.

The first sentence of the protest intimates that "a large segment of the medical profession is not in sympathy," etc. Actual surveys indicate that at least 85 per cent of the medical profession is in sympathy and is voluntarily contributing the assessment.

The remaining sentences of the first paragraph express doubt as to the manner in which the Board of Trustees will administer the funds arising from the special assessment. The Board of Trustees, under the Constitution of the Association, is charged with full responsibility for all funds and property

of the Association. The assets of the Association are in excess of \$10,000,000 and the annual expenditures in excess of \$4,000,000. The assessment funds will be spent according to plans already made and for which budgets have been approved. The statement has already been published and is here reaffirmed that this fund is not for lobbying nor in any way a "slush" fund, but that it will be devoted chiefly to education of the American people as to the present high quality of medical service in our country, as to the inevitable deterioration, as shown in other countries associated with a governmental system of medical care and also to accelerate in every way possible the enrollment of the people in voluntary hospitalization and medical care plans. This is the first time, since the Association developed into an important, financially significant organization, that any doubt has even been hinted as to the dependability of the Board of Trustees in administering the funds.

The second paragraph of the protest begins with an "if" clause; the signers could have learned on suitable inquiry before signing that the funds are not being used for "legislative lobbying." If education and information of the public relative to medical care in the United States are "propaganda" the signers should understand that such education is a significant part of the Association's program. The protest mentions an "already firmly rooted suspicion that the Association's objectives are primarily economic and selfish"; the allegation is made without specifying the extent of this suspicion or the names of those in whom it is "firmly rooted." Can it be that the signers of the protest are thus "firmly rooted" in their views? When the four representatives of the signers met with the Board of Trustees

they were given full information as to the "comprehensive plan to extend and improve medical care and education." Whether or not they considered it "carefully worked out" and sufficient did not become apparent. They did continue to insist that their protest be published, notwithstanding their admission of unfamiliarity with the details of the Association's activities and its program.

The third paragraph of the protest alleges that the Association has been unwilling to "acknowledge the need for improvement." This statement is without any support by actual evidence. The "comprehensive, constructive program" of the Association printed in this issue of *The Journal* is proof to the contrary. This program is an extension and a broadening of previous programs, many phases of which have already been implemented.

In the original communication received from this group, the final paragraph read, "The undersigned believe that now is the time to voice our disapproval of the leadership and policies of the Association." About a week later an additional clause was added indicating that this disapproval was limited exclusively to "the extension of medical care." When the four representatives conferred with the Board of Trustees they admitted that the phrase had been added and the sentence modified without notifying the original signers of the protest.

The Board of Trustees is convinced that the circulation and issuance of this protest is an unfortunate disservice to the cause of the medical profession of the United States. It is not based on knowledge or fact as to the policies or activities of the American Medical Association.

Signed:

ROSCOE L. SENSENICH, President
 R. W. FOUTS, Vice President
 ERNEST E. IRONS, President-Elect
 JOSIAH J. MOORE, Treasurer
 F. F. BORZELL, Speaker of the House of
 Delegates
 GEORGE F. LULL, Secretary and General
 Manager
 MORRIS FISIBEIN, Editor

Board of Trustees:

ELMER L. HENDERSON, Chairman
 E. S. HAMILTON, Secretary

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 WALTER B. MARTIN
 DWIGHT H. MURRAY
 JOHN H. FITZGIBBON
 JAMES RAGLAN MILLER
 GUNNAR GUNDERSEN

MEETINGS

Wednesday, April 13

In recognition of CANCER CONTROL MONTH the program will be devoted to the subject of cancer. Speakers will include CHARLES S. CAMERON, M.D., Medical and Scientific Director, American Cancer Society; CALVIN T. KLOPP, M.D., Director, Warwick Memorial Cancer Clinic; MURRAY M. COPELAND, M.D., Professor of Oncology, Georgetown University School of Medicine; and BRIGADIER GENERAL WALLACE H. GRAHAM, Personal Physician to the President of the United States. Subjects will be announced.

Wednesday, April 27

The following program will be presented:

"Intractable Exophthalmus," ROBERT E. MORAN, M.D.
 "Hermaphroditism," WM. CALHOUN STIRLING, M.D.
 "The General Practitioner," R. LEE SPIRE, M.D.

WOMAN'S AUXILIARY NOTES

The Woman's Auxiliary to the Medical Society of the District of Columbia aided in the fund-raising campaign of the Washington Heart Association by sponsoring a luncheon-fashion show at the Shoreham Hotel on Valentine's Day, February 14. The committee in charge of arrangements for the luncheon were: Mrs. Robert E. Moran, *Chairman*; Mmes. Edgar E. Quayle, Edgar Davis, William H. Beard, Daniel L. Borden, Richard E. Dunkley, Marcel J. Foret, William P. Herbst, John H. Lyons, A. Magruder MacDonald, Fred R. Sanderson, John J. Shugrue, Philip P. Steptoe, Richard H. Todd and G. Louis Weller, Jr.

At the meeting of the Auxiliary, February 9, Dr. Leonard M. Elstad, President of Gallaudet College, spoke on "Educating the Deaf Citizen." He was introduced by Mrs. R. Stevens Pendexter, Program Chairman.

Luncheon was served following the meeting.

MRS. MARCEL J. FORET
Publicity Chairman

Washington Physicians of Yesterday



XLV. HENRY DAVIDSON FRY, M.D., Sc.D.

One of the group of able gynecologists contemporary with him in Washington, D. C., Dr. Henry Davidson Fry was born April 11, 1853, in Richmond, Virginia. From the University of Maryland he received the degree of M.D. in 1876, and of Sc.D. in 1907. He interned in the Jersey City Charity Hospital; in 1890 he studied in Europe.

From 1878 he practiced medicine in Washington, being associated for fourteen years with the prominent internist, Dr. W. W. Johnston. His specialty was obstetrics and gynecology, and in this field he attained the highest local eminence. He is credited with having performed the first successful Caesarian section in the District of Columbia, in 1890, also the first successful symphysiotomy. He was connected with Garfield, Columbia, and Georgetown University Hospitals, and conducted his own private sanitarium. He was Professor of Obstetrics in the Georgetown University Medical School 1890-1917, afterward Emeritus.

Dr. Fry was an active member and officer of numerous medical societies. The District of Columbia Medical Association he joined in 1878, and the Medical Society in 1879; of the latter he was Vice President in 1889, President in 1908, and for several years a member of its Board of Examiners. Of the American Medical Association he was a Vice President in 1913. Elected to membership in the American Gynecological Society in 1890, he became its Vice

(Continued on page 170)

THE NATIONAL HEALTH PROGRAM

EDITOR'S NOTE: On January 31, 1949 Senator Henry Cabot Lodge, Jr., of Massachusetts, requested consent to have printed in the *Congressional Record* a letter he had received from Dr. Paul R. Hawley, Chief Executive Officer of the Blue Cross-Blue Shield Commissions. There being no objection, the letter appeared in the *Record* on the above date together with a statement by Senator Lodge. Because of their timeliness and unusual interest they are reprinted here.

STATEMENT BY SENATOR LODGE

In common with many other Senators, I have for a number of years been deeply interested in trying to find the most intelligent and effective way that the power of Government could be used to improve the Nation's health. In fact, 9 years ago, I introduced a bill on that subject which I still believe solves an important part, although not all, of the health problem. The idea held by some groups that Government must sit back and do absolutely nothing has always been to me as distasteful as the notion that we must embark on half-baked and destructive policies which will destroy all the great good that has already been accomplished in the medical field. I have always thought that we were not on the horns of the dilemma of either doing nothing on the one hand or doing the wrong thing on the other. The challenge here in Congress is to do that which is intelligent.

It was with this thought in mind that I read recently "The Nation's Health, a 10-Year Program," by Oscar Ewing, Federal Administrator of the Federal Security Agency.

In the acknowledgment printed at the beginning of this report there was listed the name of Dr. Paul R. Hawley, who is now the Chief Executive Officer of the Blue Cross and whose address is Associated Medical Care Plans, Chicago, Ill. I am sure that I do not need to tell the members of the Senate of the life of this remarkable statesman in the field of medical affairs. Dr. Hawley was a Major General during the War and was the Chief Medical Officer for General Bradley in the European Theater of Operations. At the end of the War it was he who set up the new and improved medical service in the Veterans Administration. He is definitely a man who disagrees with those of his colleagues who think that nothing should be done. But he equally disagrees with those who favor policies which will lower the standards of the medical profession, deprive the patient of the choice of his doctor, and generally nullify the great advances which have been made in medicine in the past century.

I asked Dr. Hawley for his reaction to Mr. Ewing's report in view of Mr. Ewing's mention of his name. He wrote me a letter so full of wisdom and courage that I feel it should be made available to the members of the Senate for their careful perusal. It is frank in its statements and meets all the issues unequivocally.

ASSOCIATED MEDICAL CARE PLANS
CHICAGO, ILL., January 14, 1949

HON. HENRY CABOT LODGE, JR.
UNITED STATES SENATE
WASHINGTON, D. C.

DEAR SENATOR LODGE:

In planning for the National Health Assembly, held in Washington May 1-4, 1948, the Federal Security Administrator invited some 40 people to serve upon an executive committee to assist in the arrangements. These committee members were selected from all kinds of interested groups, and represented all shades of opinion upon the issues to be discussed. The gamut of the thinking in this committee extended from the most extreme left, as represented by social welfare people connected with organized labor, to the far right, as represented by officials of the American Medical Association. I seemed to fit near the center—that is, recognizing elements of weakness in medical care which should be corrected without delay but strongly opposing their correction by radical, socialistic methods which would demoralize the present organization of medical care to the point of producing complete chaos. While the political control of the American Medical Association remains in the hands of ultraconservatives, my association with the rank and file of the medical profession throughout the country has convinced me that the majority of physicians—certainly the majority of the better ones—think about as I do.

Mr. Ewing made it plain to the executive committee from the start that he would be bound neither by the committee nor the National Health Assembly in making his report to the President. It

was quite clear that he had decided upon the substance of his report before convening the National Health Assembly, and that the latter was to serve merely as a sounding board or amplifier—to be switched on or off depending upon the direction the discussions took.

Furthermore, it was evident that the so-called executive committee was no executive committee at all. It had no voice in the arrangements nor in drafting the report of the assembly—not to speak of Mr. Ewing's report to the President. Quite a number of the members of the executive committee considered resigning on this account, but most of them—I, for one—decided against this in the thin hope that we could do more from within than from without; and we did not want to be accused of refusing to play if we did not get our own way.

I do feel very strongly, however, that the way the names of the executive committee were used in "The Nation's Health" bordered upon sharp practice. While it is true that, if one searches closely enough, one will find the statement that "There was no agreement on the question of national health insurance and my recommendation of such a program must be clearly understood as in no way expressing the views of the assembly," this disclaimer is hidden within a paragraph wholly removed from the listing of the executive committee and is easily overlooked. Even if read it is not at once clear that a very large segment of the executive committee opposed this principle.

Unfortunately, "The Nation's Health" is one of the best prepared documents I have ever read. The large part of its contents is true; and this tends to obscure the downright lies with which it is interlarded at strategic places. For example, the following are stated as facts:

1. "Every year 325,000 people die whom we have the knowledge and skills to save." Well removed from this positive statement is the hedge that this is but a guess. It may well be true, but it is not true that this is due to want of medical care. Every physician has seen many patients die of conditions that are easily curable in other patients, and is at a loss to explain why such patients have refused to respond to methods of proved effectiveness. But Mr. Ewing's inference is that they die because they are unable to obtain proper medical care—which is false.

2. The old myth of the 5,000,000 rejections for physical unfitness during the late War. This has been completely exploded long since. This was not due to any lack of medical care but to conditions which modern medicine cannot yet prevent and to an inordinately severe set of physical standards insisted upon by our own armed forces. Any other army in the world would have been delighted to accept 3,000,000 of this 5,000,000.

I could, without any great compromise, accept all of the goals of Mr. Ewing's program except that of compulsory health insurance.

I am interested in only one issue—that of preserving the medical advances thus far achieved and of stimulating still further progress. I have only one goal—that of a good quality medical care. I am not interested in the slightest in the economic security of physicians except as it is an incentive to practice better medicine.

I am not in sympathy with the position of the American Medical Association. I feel that their resistance to all suggestions has only muddled the waters, and has weakened the position taken by those of us who are thinking only of the good of the people.

But I am firmly convinced that compulsory health insurance will inevitably lower the quality of medical practice in this country. This will be a thousand times worse for our people than a distribution of medical care which may not be all that we want it to be. I think it far more important that 80 per cent of our people obtain medical care of the highest quality than that 100 per cent get only low-quality medical care. With other measures far less socialistic than compulsory health insurance we can extend high-quality care to all of our people. But compulsory health insurance will force a lowering of quality that can never again be raised.

The *Philadelphia Bulletin* has invited me to debate this question on March 22 with Mr. Ewing over a national radio net. I am now collecting facts and figures which certainly convince me; but I have little hope of convincing Mr. Ewing.

It was most nice to hear from you, and you may be assured that I follow your public career with the greatest interest and admiration.

Sincerely yours,
PAUL R. HAWLEY, M.D.
Chief Executive Officer,
Blue Cross-Blue Shield Commissions

DISABILITY INSURANCE

EDITOR'S NOTE: This is the first of a series of brief, informative articles on insurance prepared by an insurance counselor at the request of the Editor. The subjects to be covered are: Health and Accident Coverage, Ordinary Life Insurance, Twenty-Payment Life, Retirement Income, Term Insurance and Family Income Contracts.

Time is the most valuable asset a physician has, for it is through the efficient use of his time that a doctor is enabled to provide food, clothing and shelter for his family—to say nothing of the luxuries that add to the fullness of life. Lost time means lost income. Sickness or accident can destroy the ability to earn, and unless income is available to replace lost earning power the economic consequences can be disastrous.

The prudent doctor guarantees his earning power by the purchase of disability insurance, and the coverage may take one of four forms.

1. *The Cancellable Contract.*—This policy is designed to provide monthly income in the event of loss of time due to accident or sickness on the most economical basis obtainable. The length of time for which payments will be paid are varied, ranging from one year's coverage on both accident and sickness to lifetime coverage on both. Price varies in relationship to the years of protection given.

There is one ever-present danger in the cancellable form of contract. The doctor is almost certain to have his protection revoked by the insurer during his later years of life when, normally, his need will be greatest. The insurance company has the right to cancel the policy at any time by written notice mailed to the insured at his last known address. It is not even necessary that the notice be received. The contract can also be ridered to eliminate recurrent disabilities and the premium can be increased.

2. *The Yearly Renewable Term Contract.*—This, too, is a cancellable form of policy but with the cancellation clause removed from the body of the contract. The insurance company cannot cancel it at any time by written notice, but they do have a power which is just as effective. They can refuse to renew upon any renewal date and this is a widely practiced procedure in cases where recurrent disabilities appear, or where it becomes a possibility that an insured may file for a future long-term disability.

3. *Noncancellable Fixed Premium Policies.*—Under this form of underwriting, the insurer guarantees to stay on the risk until the time when a practicing

physician is normally slackening off in his work or retiring, usually to age 65. The annual premium is level in amount until age 55 or 60 and then it increases each year in order to compensate for the increase in expected claims during the old-age period. Oftentimes the contract provides for a reduction in benefits rather than an increase in rate. The effect is the same. For example, a contract will provide for a 10 per cent reduction in benefits for each of the five years between ages 55 and 60. Thereafter, the insured has only 50 per cent benefits although he still pays the full cost.

4. *Noncancellable Level Premium Contracts.*—The cost of the coverage under this method of underwriting is the same for each year until the expiration date of the contract. The insurer cannot increase the premium, decrease the benefits, change or alter the policy in any way once it is written. The contract is usually incontestable for any reason after it has been in force for two years. The insured has the advantage of protection that cannot be taken from him regardless of the number of claims filed.

The cost of the noncancellable policy is in excess of the cost of the cancellable form but the difference is well worth the assurance it brings that the protection will be there if and when needed.

CONTRACT LIMITATIONS

Length of Coverage.—Nearly all of the noncancellable policies written by the leading casualty companies will provide monthly income for as long as a disability lasts if that disability is caused by accident. The length of time for which benefits will be paid for loss of time due to sickness varies from 1 year to 10 years. Naturally, the cost of providing protection for a 10-year period will exceed that of a 5- or 2-year period.

Waiting Period.—Benefits can be scheduled to begin the very first day on both accident and sickness, or varying periods of elimination can be selected to reduce cost. For example, the insured can waive the first 7, 14 or 30 days or he may carry his own risk for 60 or 90 days. Just as a \$100 deductible provision on the collision portion of your auto-

IMPORTANT ANNOUNCEMENT

Members of the Medical Society of the District of Columbia who would like to address the Society at its regular scientific meeting, May 11, will have an opportunity to do so. Abstracts of papers they would like to present should be mailed to the Secretary of the Medical Society not later than April 15, 1949. On the basis of these abstracts the Program Committee will select the speakers.

mobile policy makes for a lower cost than a \$50 deductible provision, so does a 90-day waiting period provide more reasonable coverage than a 14-day waiting period.

Ordinarily, an individual is prone to buy his disability policy with the object in view of using it. The coverage should more properly be purchased with the hope that it will never have to be used. It is more economically sound to buy on the basis of a 60- or 90-day waiting period for it is the longer disability that will hurt financially and not the short-term one. The average doctor can carry his own risk for 60 or 90 days and by so doing he is not subjecting himself to the high cost of paying for chronic claimants.

House Confinement.—Too large a number of health and accident contracts contain a house confinement clause. This is not a desirable feature to have in a policy since many of the longer disabilities are non-confining in nature. Nervous afflictions, tuberculosis, heart conditions may all require the disabled person to be out of doors a large portion of the time. An insured with a contract containing a house confinement clause will, in the event that he wanders out of doors, soon find himself receiving one half of the indemnity provided in his policy and that for a limited period of time—usually from 3 to 6 months to a year.

VALUE OF PERSONAL CONTACT

Disability insurance should be purchased, if possible, on a personal basis from someone who will take an interest in your case. An insurance agent or broker who is interested in you, and who is anxious to preserve your good will, can be of inestimable assistance in seeing to it that you receive good service. He can assist in expediting your claim pay-

ments and will at all times represent you rather than the insurance carrier.

COSTS

One brief word about costs. A cancellable form of coverage providing \$200 monthly income for loss of time due to accident or sickness, with accident benefits payable from the first day, for life, and sickness benefits from the eighth day, for 2 years, plus an additional \$200 monthly for 4 months if hospitalized, will cost approximately \$102 at ages 30 to 49, whereas a noncancellable contract providing the same benefits amounts to \$128. Cost will vary among the companies by a very substantial margin. What one company will provide for \$128, another will charge as much as \$168. Since the average physician does not have the time nor the facilities available to make a search of the field for his coverage, he must depend upon his insurance broker to represent him.

BOOK REVIEW

The Business Side of Medical Practice, 2nd ed. THEODORE WIPRUD, Executive Director and Secretary of the Medical Society of the District of Columbia and Managing Editor of the *Medical Annals of the District of Columbia*. Price, \$3.50. Pp. 232, with 22 figures. Philadelphia: Saunders, 1949.

DEAR DOCTOR,

Although I'm not just sure about your age or your station, I am sure you will find valuable advice in Mr. Wiprud's carefully prepared chapters. From suggestions on how to plan your office, and start your practice, through to the outlook for your future, this book is filled with helpful suggestions that all physicians should pause to consider. It is evident throughout that Mr. Wiprud has a sincere interest in your success and well-being.

For instance, you will find the answers to such questions as: "Is my Secretary helping or hindering my practice?" "Are my records adequate?" "What is a sound investment or savings policy for me?" "Am I keeping up?" "Can I write a scientific paper properly, or address a meeting admirably?" "Do I wish to engage in group practice?" and "What are my prospects in the future?"

These are just a few of the many things that will make this book appeal to you. It has a couple of hundred pages, but it's light, easy to hold, easy to read, and enjoy. I recommend it heartily.

Sincerely,
H. H. H.

News and Personals

The American Society of Anesthesiologists and the Southwestern Society of Anesthesiologists will hold a joint meeting, April 7, 8 and 9, at the Hotel Statler. Scientific and technical exhibits are planned. There will be no registration fee; all physicians who are interested are invited to attend.

Registration will begin at 8 a.m., April 7. Presiding at the morning and afternoon sessions will be Dr. L. H. Mousel and Dr. Edward B. Tuohy, respectively. A message from the President of the ASA, Dr. H. Boyd Stewart, of Tulsa, Oklahoma, will feature the opening session.

On Friday, April 8, following operative clinics at Georgetown and George Washington University Hospitals, 7:45-9:45 a.m., the meetings will resume, with Dr. Donald Stubbs presiding.

Drs. Tuohy and Mousel will present scientific papers. Out-of-town speakers will include:

Drs. Robert D. Dripps and Seymour Schotz, Philadelphia; Dr. John F. Morris, Huntington, West Va.; Drs. John Adriani, Glace E. Bittenbender, and David Davis, New Orleans, La.; Dr. Howard M. Ausherman, Chattanooga, Tenn.; Dr. Alice McNeal, Birmingham, Ala.; Drs. Lewis K. Diamond and Henry K. Beecher, Boston; Dr. Ruth C. Martin, Durham, N. C.; Dr. John W. Winter, San Antonio, Texas; Dr. Perry P. Volpito, Augusta, Ga.; and Drs. Harvey C. Slocum, G. F. Eden and C. R. Allen, Galveston, Texas.

The principal speaker at the banquet, April 7, will be Mr. H. H. Clegg, Assistant Director of the Federal Bureau of Investigation, whose topic will be "The Doctor and the Confidence Man."

The American College of Allergists will hold its annual meeting at the Palmer House, Chicago, April 14-17. There will be no charge for registration. Both members and nonmembers are urged to attend. Hotel reservations should be made directly with the Reservation Manager, Palmer House, Chicago 90, Illinois; physicians should indicate that they are attending the meeting of the ACA.

Dr. Harry S. Bernton, of Washington, will participate in the scientific program. He will take

CALENDAR OF MEETINGS

February 3	Executive Board of Woman's Auxiliary
February 4	Subcommittee on Maternal Welfare
February 5	Washington Society of Pathologists
February 7	Program Committee Graduate Nurses' Association
February 8	District Dental Society Registered X-ray Technicians of Washington
February 9	Woman's Auxiliary Washington Academy of Surgery
February 10	Joint Meeting of Section on Neurology and Psychiatry and Medical Society of St. Elizabeths Hospital
February 12	Washington Psychoanalytic Society
February 14	Committee on Medical Care
February 15	Subcommittee on Child Welfare Health and Hospital Section of United Community Services D. C. Medical Technicians
February 16	Scientific Meeting of Society
February 18	D. C. Chapter, Arthritis and Rheumatism Foundation
February 19	Regional Meeting of American College of Physicians
February 21	Nominating Committee Board of Trustees, Medical Service
February 22	Section on General Practice
February 23	Scientific Meeting of Society
February 24	Committee on Arrangements, 20th Annual Scientific Assembly
February 28	Executive Board

part in a discussion on "Cottonseed Protein vs. Cottonseed Oil Sensitivity."

The Council on National Emergency Medical Service will hold its semiannual meeting, March 21, at the Headquarters of the American Medical Association, 535 North Dearborn Street, Chicago 10, Ill.

The American College of Physicians announces the following series of postgraduate courses to be held during the spring months of 1949 in cities along the Eastern Seaboard:

COURSE No. 5, April 25-30. Electrocardiography: Basic Principles and Interpretation. Massachusetts General Hospital, Boston; Conger Williams, M.D., *Director*. Fees: \$60, ACP members; \$120, nonmembers.

COURSE No. 6, April 28-May 1. Diseases Caused by Immune Mechanisms. Haddon Hall Hotel, Atlantic City, N. J.; Leo H. Crisp, M.D., *Director*. Fees: \$30, members; \$60, nonmembers.

COURSE No. 7, May 2-7. Cardiovascular Disease. Philadelphia Institutions; William G. Leaman, Jr., M.D., *Director*. Fees: \$30, members; \$60, nonmembers.

COURSE No. 8, May 9-14. Physiological Basis for Internal Medicine. University of Pennsylvania Graduate School of Medicine, Philadelphia; Julius H. Comroe, Jr., M.D., *Director*. Fees: \$30, members; \$60, nonmembers.

COURSE No. 9, June 13-18. Endocrinology. Tufts College Medical School (Postgraduate Division), Boston; Edwin B. Astwood, M.D., *Director*. Fees: \$30, members; \$60, nonmembers.

All registrations must be made through the Executive Offices of the College, 4200 Pine Street, Philadelphia 4, Pa.

The general oral and pathology examinations (Part II) for all candidates for the **American Board of Obstetrics and Gynecology** will be conducted at Chicago, Illinois, by the entire Board from Sunday, May 8, through Saturday, May 14, 1949. The Hotel Shoreland in Chicago will be the headquarters for the Board.

Candidates for reexamination in Part II must make written application to the Secretary's office not later than April 1, 1949.

Applications are now being received for the 1950 examinations. Application forms will be sent upon request to the Board's office, 1015 Highland Building, Pittsburgh 6, Pennsylvania.

The **Montgomery County Medical Society** will hold its next meeting at the Manor Country Club, Norbeck, Md., April 19, with dinner preceding at 7:15 p.m. The guest speaker will be Dr. Wallace E. Herrell; his subject, "The Antibiotics and Clinical Medicine." Dr. Herrell is Consultant in Medicine at the Mayo Clinic and Associate Professor of Medicine of the Mayo Foundation Graduate School, University of Minnesota. His paper will be dis-

cussed by Drs. Monroe J. Romansky and Harry F. Dowling.

An organization of the **medical alumni of Children's Hospital** will be undertaken at a charter meeting scheduled for April 5. At the time the **MEDICAL ANNALS** goes to press, the place of meeting has not been decided. For further information call Dr. Alfred T. DeVito at Children's Hospital, who is Chairman of the Organizational Committee of the Children's Hospital Alumni Association.

A vacancy exists in the **Station Hospital at Camp Lee, Virginia**, for a Medical Officer (Eye, Ear, Nose and Throat), P-5, \$6,235.20 per annum. Any physician interested in applying for this position should write to Mr. John E. Edwards, Chief, Civilian Personnel, Headquarters Camp Lee, Camp Lee, Virginia.

At the meeting of the **Executive Board**, January 31, Dr. Fred O. Coe was nominated to succeed himself as a Vice President of the Washington Academy of Sciences.

The 1949 fund-raising campaign of the Washington Heart Association was given the official endorsement of the Medical Society.

In a communication from the AMA's Coördinating Committee for the Protection of the People's Health, the Society was requested to name a representative to the Committee of 53 Physicians, one from each constituent association of the AMA, which will formulate policies for the pending educational campaign. The Board appointed Dr. Herbert P. Ramsey to fill this post for the District Medical Society.

The Board also voted to revive the Committee on Coöperation with the District Bar Association.

The **Section on Neurology and Psychiatry and the Medical Society of St. Elizabeths Hospital** held a joint meeting in the Medical Society's auditorium, February 10, for the purpose of organizing a new association, to be known as the **Washington Psychiatric Association**. This group hopes to become affiliated with the American Psychiatric Association.

Dr. Addison M. Duval was elected President of the new Association. Dr. Duval is Chief of the

Medical Staff at St. Elizabeths Hospital and Clinical Professor of Psychiatry at George Washington University School of Medicine. Dr. Robert T. Morse was named Vice President; Dr. Henry P. Laughlin, Secretary; and Dr. Philip Litvin, Treasurer. Elected to the Association's Council were Dr. Zigmond M. Lebensohn, Dr. Norman Brill, and Dr. Edith Weigert.

Preceding the business meeting, Dr. Florence Powdermaker gave a talk entitled, "Observations on Japan." Dr. Powdermaker was formerly Special Consultant to the War Department.

The Regional Meeting of the American College of Physicians, which was an all-day meeting in the Medical Society's building, February 19, was well attended. Dr. John Minor, President of the District Medical Society, presided at the opening session.

Papers were presented by the following physicians: Lt. Comdr. Eugene P. Cronkite, of the Naval Medical Research Center; Dr. Sol Katz, of Gallinger Municipal Hospital; Dr. Emanuel B. Schoenbach, of Johns Hopkins University School of Hygiene; Dr. Theodore E. Woodward, of the University of Maryland School of Medicine; Dr. Robert J. Huebner, of the National Institutes of Health; Major Thomas A. Haedicke, of Walter Reed General Hospital; Dr. Albert D. Kistin, of the Veterans Administration Hospital (Mount Alto); and Dr. Wallace M. Yater, Director of the Yater Clinic, and Governor of ACP for the District of Columbia. Dr. Yater headed the committee which arranged the program.

The following staff members of Georgetown and George Washington University Schools of Medicine contributed papers: Drs. Hugh H. Hussey, Thomas McP. Brown, Monroe J. Romansky, Harry F. Dowling, Edward B. Tuohy, L. H. Kyle, Lester S. Blumenthal, John J. Curry, Harry S. Bernton, George N. Raines, Paul F. Jaquet, and Brian Blades.

The Annual Meeting of the Southern Section of the American Federation for Clinical Research was held in New Orleans, January 28, and the **Third Annual Meeting of the Southern Society for Clinical Research** was held in the same city, January 29. Attending these meetings from Washington were Drs. Harold L. Hirsh, Hugh H. Hussey, Harold J.

Jeghers, John J. Curry, and Walter Kurland.

Two papers, "Diffusion of Streptomycin into Serous Cavities Following Intramuscular Injection" and "Therapeutic Value of Small Doses of Streptomycin in Tuberculosis," were read by Dr. Hirsh, January 28. Collaborators on the first paper were Dr. Kurland, Dr. Patrick B. Storey, Miss Helen Murphy, and Dr. Sol Katz; on the second, Drs. Katz and Bernard Milloff.

Another paper of local interest presented at this meeting was that by Dr. John P. McGovern, son of Dr. F. X. McGovern, well known Washington physician, on "The Immune Response to H. Pertussis Vaccination—a Study Using the Passive Intraperitoneal Mouse Protection Test."

At the meeting of the Southern Society for Clinical Research, Dr. Hirsh read a paper which had been prepared jointly with Dr. Kurland on "Treatment of Various Infections with Single Injections or Injections at Five Day Intervals of 300,000 Units (1 c.c.) Procaine Penicillin in Oil with 2 per cent w/v Aluminum Monostearate."

A paper on "The Effect of Dihydroergocornine on the Pulmonary Response to Histamine and Methacholine in Subjects with Bronchial Asthma," prepared by Drs. Curry, Job E. Fuchs and Samuel E. Leard, was presented by Dr. Curry.

The Committee of 53 Physicians held its first meeting at the Headquarters of the American Medical Association in Chicago, February 12. Representing the District Medical Society were **Dr. Herbert P. Ramsey**, who addressed the meeting, and **Theodore Wiprud**, Secretary.

Dr. Ramsey spoke before the Committee on Rural Health and State Committees on Rural Health of the AMA, in Chicago, February 3. His subject was "Local Health Units for the Nation."

The 1949 Regional Conference on Social Hygiene was held at the Hotel Statler on National Social Hygiene Day, February 2. Speakers at the luncheon session were Dr. Leonard A. Scheele, Surgeon General of the United States Public Health Service, and the Honorable Frances Payne Bolton, member of Congress and Vice President of the American Social Hygiene Association. The latter was awarded the William Freeman Snow Medal by Philip R. Mather, President of the American Social

Hygiene Association, who presided at the meeting. Dr. William P. Herbst, President of the Social Hygiene Society of the District of Columbia, gave a brief progress report, enumerating the most significant steps taken by the Society during the past year.

At the afternoon session a Panel Discussion on Progress and Gaps in Family Life Education was held. Participating as a panel member was Dr. S. Ross Taggart, Chief of the Bureau of Venereal Diseases of the District Health Department.

Theodore Wiprud, Secretary of the District Medical Society, was a luncheon guest.

The Women's Medical Society of the District of Columbia met in the Solarium of Doctors Hospital, March 1. The program consisted of a Panel Discussion on Infant-Parent Relationships. Dr. Henry Work expressed the viewpoint of the psychiatrist, Dr. P. A. McLendon, that of the pediatrician, and Dr. John Parks, the obstetrician and hospital administrator.

The Diabetes Association of the District of Columbia presented a Panel Discussion on Juvenile Diabetes at the regular weekly meeting of the Sunday Morning Conference at Children's Hospital, January 30. Dr. E. Clarence Rice was moderator. Phases discussed were: "Diagnosis in Children," Dr. John E. Cassidy; "Essentials in Treatment," Dr. Rice; "The Use of Insulin," Dr. K. Hammond Mish; and "Psychological Problems," Dr. Samuel Benjamin.

The Seminar on Tumors of the Skin, sponsored by the Washington and Baltimore Societies of Pathologists, February 5, was a very successful meeting, attended by 125 pathologists and other interested physicians.

The Washington Psychoanalytical Society met in the Medical Society's library, February 12. The guest speaker was Dr. O. Spurgeon English, who spoke on counter-transference.

Members of the **Clinico-Pathological Society** were entertained at the home of Dr. B. L. Hardin, Jr., February 15. Dr. James N. Greear, Jr., furnished a scientific paper on "Tumor Metastasis to the Eye."

The Hospital Council of the National Capital Area elected Walter N. Tobriner, Washington attorney and a member of the Board of Directors of Garfield Hospital, President at its annual meeting, February 10. He succeeds William R. Castle, who has headed the Council since its organization in 1946.

Other officers elected were: James H. Lemon, President of the Board of Directors of Children's Hospital, Vice President; Sister Marie, Superintendent of Providence Hospital, Secretary; and J. G. Capossela, Superintendent of Emergency Hospital, Treasurer.

Members of the Executive Committee include the following hospital administrators: Dr. Alvin R. Sweeney, Gallinger; Leo G. Schmelzer, George Washington; Arthur B. Solon, Suburban; and John J. Anderson, Arlington.

Robert P. Bryant is Executive Secretary of the Council.

Several physicians were invited to address the **Middle Atlantic Zone of the National Association of Chiropodists**, which held its annual convention at the Shoreham Hotel, February 20-22. Dr. Elliott P. Joslin, of Boston, was introduced by Dr. John A. Reed, President of the District Diabetes Association, at the scientific session, February 21. Dr. Joslin spoke on "Feet in Relation to Diabetes." Admiral Charles S. Stephenson, M.C., U.S.N. (retired), of Washington, discussed "Medicine in the Armed Forces," and Dr. Wallace M. Yater, Director of the Yater Clinic, presented "New Advances in Medicine."

A gift of \$15,500 from the Women's Board of **George Washington University Hospital** has brought the total for funds to be used for purchasing equipment for the new Hospital to \$927,559, well above the original \$925,000 goal. A total of 3,948 contributions have been made to the Hospital Equipment Fund since the campaign began, January 8, 1947.

Leo G. Schmelzer, Superintendent of **George Washington University Hospital** for the past four years, has submitted his resignation in order to accept a position with the Public Health Service. In his new position he will direct research into the

administration and management of community hospitals which are aided by Federal funds under the Hill-Burton Act. Mr. Schmelzer supervised the construction and organization of the new Hospital.

Arkell B. Cook has resigned as Administrator of **Garfield Memorial Hospital** and will accept a similar position with Evanston Hospital, Evanston, Ill., which is affiliated with Northwestern University. Mr. Cook has served in his present post since July 1, 1947. He was Assistant Administrator of the University of Michigan Hospital for several years before coming to Washington.

Dr. J. Leon Helfgott has been appointed school ophthalmologist for the District of Columbia, a position which has not been filled since Dr. Inez Wilber resigned in 1946. Dr. Helfgott will serve at the eye clinic at 16th and D Streets, N.W. on a part-time basis, Monday, Wednesday and Thursday.

A native of Baltimore, Dr. Helfgott graduated

from the University of Maryland in 1938, and from the George Washington University School of Medicine in 1942. He served in the forces from 1943 until 1946, and was discharged as Captain. He was on the medical staff of Gallinger Hospital until last September, when he opened an office for private practice.

Washington philatelist-physicians are invited to communicate with Dr. B. E. Knapp, 410 Scollard Building, Victoria, B. C., a member of the Canadian Medical Association, who writes: "I am starting a collection and would like to enter into some reciprocal arrangement with a medical man in Washington who might wish to exchange American issues as they come out, or are now available, in exchange for a similar value in new Canadian issues."

Dr. J. Peter Murphy delivered a series of lectures, February 7, 8, and 9, on neurosurgical subjects before the staff of the San Patricio Veterans Administration Hospital in San Juan, Puerto Rico, as part of a postgraduate training program. His lectures

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. Most of these engagements were filled through the Society's Speakers Bureau, which is headed by Dr. James A. Gannon.

Date	Speaker	Subject or Title	Organization
<i>January 27</i>	Dr. Herbert P. Ramsey	"Some Observations on Health, Economics and Politics"	District Pharmaceutical Association
<i>January 29</i>	Dr. Margaret M. Nicholson	"Congenital Heart Disease"	Alpha Phi Sorority
<i>January 31</i>	Dr. James A. Gannon	"Medical Superstitions"	Newcomers Club of Washington
<i>February 7</i>	Dr. Peter D. Comanduras	Cancer	Dupont Circle Citizens' Association
<i>February 8</i>	Dr. James A. Gannon	"Medical Superstitions"	Purchasing Agents Association of Washington, D. C.
<i>February 9</i>	Dr. Roland E. Bieren	Cancer	Mount Vernon Homemakers' Section of the Virginia Home Economics Association
<i>February 28</i>	Dr. Leonard M. Dub	"Building Emotional Health"	Parent-Teachers Association of Janney School
<i>March 1</i>	Dr. Harold Stevens	"Epilepsy"	Jewish Community Center
<i>March 1</i>	Dr. Louis Goldstein	"Obstetrics"	Coöperative Nurses, Inc.
<i>March 15</i>	Dr. Michael Miller	"Is Alcoholism a Disease?"	Jewish Community Center

were entitled: "Surgical Aspects of Subarachnoid Hemorrhage," "Surgical Therapy of Hypertension," and "Present-day Management of the Epileptic."

Dr. J. Winthrop Peabody attended the Eighth Congreso Panamericano de Tuberculosis and the Third Congreso Nacional de Tuberculosis and Silicosis in Mexico City during the week of January 23-29. He was one of 25 delegates from the United States.

Dr. Peabody also attended a joint medical conference on undergraduate teaching of diseases of the chest which was held in Chicago, February 4, 5 and 6.

Dr. Herbert P. Ramsey participated in a radio forum called "Viewpoint" over Radio Station WQQW, Sunday afternoon, January 30. The topic for discussion was "Should President Truman's Health Insurance Program Be Enacted?" Dr. Ramsey spoke for the District Medical Society. Other speakers were Representative Sid Herlong (Florida), Representative Tom Steed (Oklahoma), and Mr. Chet Patterson, full-time Washington executive for the Committee for the Nation's Health.

Dr. Oscar B. Hunter demonstrated the use of the Harger Drunkometer at a luncheon meeting of the Women's Safety Committee of the District Division, American Automobile Association, January 31. In connection with the demonstration, Dr. Hunter explained the need for acceptance of results of scientific tests as a standard for measuring a motorist's ability to function as a safe and sane driver.

Dr. Joseph S. Lawrence attended the 22nd Annual Meeting of the National Conference on Medical Service in Chicago, February 6, and spoke during the afternoon session on "What's Happening in Washington This Week." Dr. Lawrence, who is Director of the Washington Office of the AMA, also attended the meetings of the Committee of 53 Physicians, in Chicago, February 12.

Major Thomas A. Haedicke has been appointed Post Surgeon of Walter Reed General Hospital.

Major Haedicke received his degree in medicine from Wayne University School of Medicine, Detroit, Michigan, and entered the Medical Corps of the U. S. Army in 1943. Before assignment to the Army Medical Center, he was stationed at Lawson General Hospital, Atlanta, Ga.

Dr. Julius Neviaser gave an instructional course, January 24, on "Adhesive Capsulitis of the Shoulder," during the Annual Meeting of the American Academy of Orthopedic Surgeons. The meeting was held at the Palmer House, Chicago, January 22-27.

Drs. Walter A. Bloedorn, Clayton B. Ethridge and Bernard J. Walsh participated in a round table forum on heart disease over Radio Station WRC, February 2. The forum was held in conjunction with the campaign for funds sponsored by the Washington Heart Association.

Dr. Maurice H. Friedman addressed the Medical Club of Philadelphia, January 21, on "The Ewing Report and the National Health Program." The meeting was held at the Union League Club.

Dr. Winfred Overholser has been reelected President of the Washington Institute of Mental Hygiene. Other officers are Dr. Dexter M. Bullard, First Vice President; Mrs. Milton King, Second Vice President; Mrs. W. G. Stuart, Secretary; and Mrs. Mildred Percy, Treasurer.

Dr. Russell K. Hollingsworth writes that he is now Chief of Plastic Surgery at Newton D. Baker Veterans Administration Center, Martinsburg, West Virginia.

Dr. Emil J. C. Hildenbrand has been appointed Consultant in Peripheral Vascular Diseases at the Charles Town General Hospital, Charles Town, West Virginia. He attended the dedicatory services for the new hospital in October.

Additional members of the Medical Society who are assisting in the Conferences and Clinics of the **National Naval Medical Center**, and not previously published in the ANNALS, are **Drs. Harold J. Jeghers, T. Wiley Hodges, and T. Douglas Noble.**

CORRESPONDENCE

BOSTON, MASS, February 4, 1949

DR. WALLACE M. YATER, EDITOR
MEDICAL ANNALS OF D. C.
1718 M STREET, N.W.
WASHINGTON, D. C.

DEAR DR. YATER:

I have reviewed with deep interest and sympathy the correspondence of Dr. Charles R. L. Halley dated December 3, 1948, and published in the January issue of the Medical Annals of the District of Columbia. I happen to be Chairman of the Committee for Promotion of Life Insurance Medical Education, appointed by the Association of Life Insurance Medical Directors of America. One of the problems now under consideration by my Committee is the matter of Public Relations as regards the medical departments of life insurance companies and the medical profession. One of the concrete problems is this matter of antagonism aroused on the part of the medical profession by requests from life companies for attending physician's statements.

I feel that Dr. Halley has presented clearly and forcefully the reaction of many physicians. It is possible that my Committee would like to relay this correspondence to the Medical Directors of life companies by means of photostating or multilithing the correspondence as published by your Journal. My object in writing is to determine whether you have any objection to such a procedure and to obtain your consent.

Thank you for your consideration.

Sincerely yours,

H. M. FROST, M.D.
*Medical Director, New England
Mutual Life Insurance Company*

CHICAGO, ILLINOIS, January 6, 1949

REPORT OF THE COMMITTEE ON REBATES

At the St. Louis Interim Session of the House of Delegates of the American Medical Association, November 30 to December 3, 1948, the report of the Committee on Rebates was referred to the Reference Committee on Miscellaneous Business, which reported to the House of Delegates as follows:

"Report of Committee on Rebates: Your committee has given prolonged consideration to this matter and approves that portion of the report which states that the House of Delegates reiterates condemnation of the practice of any member's accepting rebates, and that the House of Delegates condemns also the practice of giving rebates by a member. It urges that the different state societies in those states in which such practices are not now illegal give serious consideration to the introduction

of legislation making the practice of rebating to or by physicians illegal.

"Your committee recommends further to the component county societies that on the receipt of a bona fide complaint the disciplinary committee of that society hold a hearing and endeavor to make an investigation of the doctor's records and accounts at society expense, and that a record of such hearing and examination be kept for the information of the state society and, if necessary, for the Judicial Council of the American Medical Association."

The report of the reference committee was adopted by the House of Delegates.

The complete report of the Committee on Rebates was published in the December 18, 1948, issue of *The Journal*, beginning on page 1176.

The recommendations of the Reference Committee are brought to your attention for appropriate action.

I am informed by the Bureau of Legal Medicine and Legislation that in 1947 legislation was introduced in California, Connecticut and Florida proposing to make the acceptance of rebates a ground for disciplinary action against the recipient. None passed. You may wish to re-read a Current Comment that appeared in *The Journal* for August 17, 1946, on page 1357, in which was reproduced a 1944 law that was enacted in New York relating specifically to the practice of rebating.

GEORGE F. LULL, M.D.
*Secretary and General Manager,
American Medical Association*

SILVER SPRING, MD., February 7, 1949

TO THE EDITOR
MEDICAL ANNALS OF THE DISTRICT OF COLUMBIA
1718 M STREET, N.W.
WASHINGTON, D. C.

SIR:

I am writing to you to renew an appeal for aid from the District of Columbia National Guard. This appeal has been made to the Medical Society on several occasions officially both by General Cox, the Commanding General, and by Lt. Colonel S. Ross Taggart, the State Surgeon.

The Guard has openings for at least three Medical Officers, and since I am resigning to move from this locality another will be presently. This makes the situation even more critical than it has been.

It would be a great service to the Guard and the citizens of the District if you would publicize the opportunity for young or older physicians of serving with the Guard.

The duties only entail one two-hour period during one evening each week, with two weeks' camp in the sum-

mer. Expert aid is given by experienced medical enlisted men, and administrative duties are a minimum. The duty adds about five hundred dollars to one's income. There is an excellent opportunity to acquire new patients from Guard personnel. Many pleasant and profitable associations are available with the men and officers of the Guard. Certainly, this is an opportunity for patriotic and civic-minded physicians. I will be glad to give any further information or it may be obtained from Dr. S. Ross Taggart.

I am personally interested in the 163rd Military Police Battalion with which I have served since 1946. It is a particularly fine organization and most deserving of continued medical service. In leaving it, I feel it a special duty to appeal to the physicians of Washington for a replacement.

I hope you will find space to reproduce a part of this appeal or some of the need here presented.

Yours truly,

GORDON M. SMITH, M.D.

*Captain, Medical Corps, District
of Columbia National Guard*

BOOKS RECEIVED FOR REVIEW

Acknowledgment is made of the following books which have been received for review:

Psychodynamics and the Allergic Patient.

HAROLD A. ABRAMSON, M.D., F.A.C.A., Associate Physician for Allergy, The Mount Sinai Hospital, New York, N. Y.; Consulting Physician for Allergy, Sea View Hospital, Staten Island, N. Y.; Assistant Professor of Physiology, Columbia University, New York, N. Y., with a Panel Discussion by Rudolf L. Baer and others. Pp. 81. St. Paul & Minneapolis: Bruce Pub. Co., 1948.

Clinical Case-Taking—Guides for the Study of Patients, 4th ed. History-Taking and Physical Examination or Semiology of Disease in the Various Systems GEORGE R. HERRMANN, M.D., PH.D., Professor of Medicine, University of Texas. Price, \$3.50. Pp. 231. St. Louis: Mosby, 1949.

Essentials of Gynecologic Endocrinology [with Sections on the Male]. GARDNER M. RILEY, PH.D., Assistant Professor of Obstetrics and Gynecology, University of Michigan Medical School. Price, paper, \$3.00. Pp. 205, with 35 figures. Ann Arbor, Mich.: Caduceus Press, 1948.

MEMBERSHIP

The following applicants for membership were duly elected to membership at the meeting of the Executive Board, January 31, 1949:

Active Members

Seymour Alpert, 2120 16th Street, N.W.
Mortimer J. Folston, 3016 Nichols Avenue, S.E.
Robert Hunter, 5600 New Hampshire Avenue, N.E.
Henry R. Lyons, 4831 Reservoir Road, N.W.
Benjamin F. Miller, 1101 Trenton Place, S.E.
Kenneth Rider Nelson, 7819 12th Street, N.W.
Ben Caswell Ogle, 903 South Frederick Street, Arlington, Va.
Muriel Raum, 1660 Lanier Place, N.W.
Arch S. Russell, Jr., 3710 39th Street, N.W.
Matthew A. Stroup, Jr., 3116 Dumbarton Avenue, N.W.
Charles S. Wise, 901 23rd Street, N.W.

Associate Members

William D. Aud, 9006 Colesville Road, Silver Spring, Md.
William Brainin, 6124 Central Avenue, Capital Heights, Md.
Marcus H. Burton, D.D.S., 1149 16th Street, N.W.
Clifton K. Himmelsbach, Federal Security Building, South
George P. Lemeschewsky, 109 South Columbus Street, Alexandria, Va.
Archibald R. MacPherson, 6247 North 19th Street, Arlington, Va.
Wallace N. Mook, 805 Carroll Avenue, Takoma Park, Md.
George Sharpe, 6900 Wisconsin Avenue, Bethesda, Md.
Stephen J. Sheehy, Jr., 824 South Arlington Mill Drive, Arlington, Va.
Thomas Edward Stone, 1757 Lamont Street, N.W.
Joseph B. Trainer, 4831 36th Street, N.W.
Merton L. White, 9715 Georgia Avenue, Silver Spring, Md.
Alvin C. Wyman, 3406 Gunston Road, Alexandria, Va.
John M. Wyman III, 7901 Wisconsin Avenue, Bethesda, Md.

The following applicants for membership will be voted on at the meeting of the Executive Board, March 28, 1949:

For Active Membership

M. Frances Ayres, George Washington University—1944
Pearce Bailey, Medical College of South Carolina—1941
John J. David, Tulane University—1948
J. Leon Helfgott, George Washington University—1942
Robert A. Muilenburg, George Washington University—1944
Samuel B. Pole III, George Washington University—1943
Neel J. Price, University of Oklahoma—1942
Boris Rabkin, George Washington University—1943
Morton Harold Rose, George Washington University—1942

For Associate Membership

Byron A. Nichol, University of Oregon—1938
 Austin B. Rohrbaugh, Jr., George Washington University—
 1941

The following applicants for membership will be
 voted on at the meeting of the Executive Board,
 May 23, 1949:

For Active Membership

William H. Ferguson, University of Tennessee—1935
 Stanley J. Gordon, George Washington University—1932
 George B. Guarino, Georgetown University—1947
 Gordon S. Letterman, Washington University (St. Louis)—1941
 Wallace H. McCune, Georgetown University—1940
 Robert P. Odenwald, University of Frankfurt, Germany—
 1923
 John J. Raedy, Georgetown University—1947
 Charles Worth Sprunt, Harvard University—1941
 Eugene J. Yorkoff, University of Virginia—1943

For Associate Membership

DeWitt Elmer DeLawter, Jefferson Medical College—1941
 Albert J. Finestone, Temple University—1945
 George A. Gray, Jr., George Washington University—1941
 Ross M. Lehman, Jr., Georgetown University—1947

Recent changes in membership status:

Active to Associate

Harry C. Bates
 Jason Geiger
 Justin E. Lacy
 Ivy A. Pelzman
 Roy C. Rounds

HURON WILLIS LAWSON, B.S., M.D., M.S., F.A.C.S.

(1873–1949)

A TRIBUTE

“Tis hard to part when friends are dear.”

Death has drawn a line under the last entry in the well-filled diary of our beloved colleague, Dr. Huron W. Lawson. Although for more than two years he was aware that death had already prepared his summons and was waiting with increasing impatience to complete delivery, he was too philosophical to spend his few re-

maining days in fruitless worry about that which is inevitable. The following expressed his attitude:

“Cowards die many times before their
 deaths;
 The valiant never taste of death but
 once.
 Of all the wonders that I yet have
 heard,
 It seems to be most strange that men
 should fear;
 Seeing that death, a necessary end,
 Will come when it will come.”



Photo by Leslie French, M.D.

HURON WILLIS LAWSON, M.D., F.A.C.S.

He could not have chosen a death more in keeping with his life. After giving his usual efficient care to patients in the morning, he died suddenly in the evening. Thus he was spared what he would have liked least—a prolonged losing battle ending in complete mental and physical chaos. He was taken as he would have wished, quickly and with dignity.

His achievements in medicine are too well known to need recounting. That he was without a peer in his field is attested by the universal

respect of his colleagues. In preparing this tribute, I asked some of his friends who knew him best to name the traits most characteristic of him. The following were those most often mentioned: able, independent, honest, fearless, energetic, generous, totally unselfish, loyal to principles and friends, supremely efficient in making and executing decisions, kind and helpful to his less skilled colleagues. Said one, "With the sure skill of the master he has extricated hundreds of us from a difficulty into which we had blundered." And another, "He was never known to refuse a call for help." And a third, "Washington has never had a doctor who gave more or better service, very often without the least compensation." His spoken word needed neither the guarantee of witnesses nor of written contracts.

Few things in life were treasured more by their possessors than the assurance that he was one's friend—for he did not assume the obligations of friendship lightly. His absence leaves a depressing emptiness in the hearts of those who loved him. A small indication of the deep affection of his friends was seen in the faces and tears of the thousands who passed by his casket where

"He lay like a warrior taking his rest
His martial cloak around him."

FRED A. MOSS, M.D.

Dr. Huron W. Lawson, Professor Emeritus of Obstetrics and Gynecology of George Washington University School of Medicine, died suddenly, January 29, 1949, at his home, 1717 N Street, N.W. Dr. Lawson was widely known as an obstetrician, having practiced medicine in Washington for forty years.

Born on a farm near Detroit, Michigan, March 15, 1873, he graduated from the Utica (Mich.) High School and from the Michigan State Agricultural College in 1895. After taking some postgraduate courses in biology at the Universities of Michigan and Chicago, he was principal of high schools at Lawton, Michigan, and Maywood, Illinois.

In 1898 he came to Washington to join the staff of the Department of Agriculture where he edited the *Experiment Station Record*. After several years with the Department he decided on a medical career and enrolled at Columbian College (now George Washington University). He received his degree in medicine in 1903 and the degree of Master of Science in 1904. He studied abroad for a year in Austrian, German and French clinics.

Dr. Lawson had practiced in Washington continuously since 1908. For ten years he served as surgeon for the Police and Fire Departments. He was a member of the faculty of George Washington University for 29 years, from his graduation in 1903 until his Emeritus status in 1932. He was also chief obstetrician at five hospitals: Columbia, 1908-28; Doctors, 1941-45; George Washington, 1916-31; Gallinger, 1929-32; and Freedmen's, 1909-19. He was the first physician to be given the title of Emeritus in Obstetrics at Columbia Hospital.

Dr. Lawson became a Life member of the Medical Society of the District of Columbia, January 1 of this year, having been elected to both the Society and the Medical Association of the District of Columbia in 1908. He was a Fellow of the American Medical Association and the American College of Surgeons, and a member of the American Therapeutic Society and the George Washington University Medical Society. From the latter he received a certificate in 1942 for his "scientific achievements and devotion to medical education."

Surviving are his wife, Mrs. Franceska Kaspar Lawson, whom he married in 1910, and a brother, Omer Lawson, of San Diego, Calif.

ALFRED CHARLES NORCROSS, M.D.

(1876-1949)

Dr. Alfred C. Norcross, a Life member of the District Medical Society, died, January 23, 1949, in Martinsburg, West Virginia, where he had been hospitalized for pneumonia at the Newton D. Baker Veterans Hospital. His home and office were at 1341 Sheridan Street, N.W.

A native of Pine Grove, Pa., Dr. Norcross was born January 1, 1876, the son of the Reverend and Mrs. William H. Norcross. He received his medical

degree from George Washington University in 1905 and interned the same year at the Governmental Hospital for the Insane (now St. Elizabeths Hospital). During World War I he served as Captain in the Medical Corps.

Dr. Norcross was elected to membership in the Medical Association of the District of Columbia (which was amalgamated with the Medical Society in 1906) and became a Life member, January 1, 1948. He was a Fellow of the American Medical Association, and a member of the George Washington University Medical Society and the Military Order of the World Wars. For many years he was President of the Argyle Country Club in Silver Spring.

Surviving are his wife, Mrs. Gertrude Carpenter Norcross; a son, Dr. John A. Norcross, an Associate member of the District Medical Society, who lives in Silver Spring; two sisters, Mrs. Richard L. Hoxie and Mrs. Robert Clay Sherrill, both of Washington; and a brother, Eber M. Norcross, of Ann Arbor, Michigan.

JAMES LEWALD, M.D.

(1888-1949)

Dr. James Lewald, Superintendent of the District Training School for the Feeble Minded at Laurel, Md., died February 3, 1949, at the University of Maryland Hospital in Baltimore, Md., following a brief illness.

Dr. Lewald was born in Cincinnati, Ohio, July 29, 1888, but early in life moved with his family to St. Louis, Missouri. He matriculated in medicine at Washington University (St. Louis), graduating in 1911. He interned at the City Hospital the following year and for two years was resident physician at the City Sanitarium.

From 1914 until 1922 Dr. Lewald was Assistant Superintendent of the City Sanitarium, taking leave of absence from his duties in 1917 to enroll for graduate work in neuropsychiatry at the University of Pennsylvania, and serving for two years, 1917 to 1919, as First Lieutenant in the Army Medical Corps during World War I. He participated in the battles of St. Mihiel and Meuse-Argonne. He left the City Sanitarium in 1922 to

become consultant in neuropsychiatry to the Veterans Bureau in St. Louis. In 1924 he became Superintendent of the St. Louis Training School, which position he held for ten years. From 1916 until 1934 he was also on the staff of the Medical Department of Washington University (St. Louis) as Assistant in Clinical Psychiatry.

In 1934 Dr. Lewald came to Washington to become Superintendent of the District Training School. How successful he was in this post is revealed in the following editorial which appeared in the *Washington Post*, February 5, after his death:

"In the death of Dr. James Lewald, Superintendent of the District Training School, the community has suffered a loss that will long be felt. Everywhere he is spoken of as one of the best-loved District officials. His unique service at the training school, which houses the community's feeble-minded, could be measured by the manner in which the faces of his patients lighted up every time he walked through the institution. Dr. Lewald made a specialty of rehabilitating feeble-minded children. In a great many instances he was able to raise their I.Q.'s as much as 30 points. Forty-five of his patients at the institution were accepted by the armed services during the War. The training school as it exists today is largely a monument to his untiring services. In 15 years he built it up from a discreditable place of detention for the feeble-minded to a rehabilitation center of recognized standing in spite of its continued inadequacies. The magnitude of his achievement stands out with special emphasis now that the community finds it necessary to replace him."

For a number of years he was on the staff of Georgetown University School of Medicine as Professor of Clinical Psychiatry.

Dr. Lewald became an Active member of the District Medical Society the year after he assumed his new duties in Washington. He was a Fellow of the American Medical Association, the American Psychiatric Association, and the American Association on Mental Deficiencies. He was a diplomate of the American Board of Neurology and Psychiatry.

Mrs. Alice Lewald survives her husband; also a son, James, Jr., of Richmond, Va.

What Would Happen—Observer*(Continued from page 150)*

sorbed by the Government scheme, or would be forced out of business, because most people would not subscribe to them and pay the Government insurance tax, too. Since they'd be

forced to pay the Government, they would drop the private plan. I don't care what assurances the Government gives that the present plans would continue—sooner or later they would disappear into the clutches of the bureaucracy.”
T. W.

Washington Physicians of Yesterday—Fry*(Continued from page 154)*

President in 1905, and its delegate to the Third International Congress on Gynecology. He was a member of the American College of Surgeons, the Southern Surgical and Gynecological Association, and the Washington Obstetrical and Gynecological Society (one time President).

A prolific contributor to medical periodicals and literature, his bibliography comprised some 39 titles. From the French he translated Paul Bar's "Obstetrical Antiseptic Practice," 1887, 175 pages, and in 1907 he published a work, "Maternity," 220 pages.

After a long illness of nearly three years Dr. Fry died May 12, 1919. He was memorialized in "Who's Who in America"; and he was held in high regard by his colleagues as a man of culture, upright Christian character, a genial and charming companion, an impressive teacher, and a devotee of art and music.

JOHN B. NICHOLS, M.D.

MEDICAL ANNALS

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THE PHYSIOLOGIC BASIS FOR THE TREATMENT OF DIABETIC COMA

JOSEPH F. FAZEKAS, M.D.

Chief Medical Officer in Internal Medicine, Gallinger Municipal Hospital

ALVIN E. PARRISH, M.D.

Resident in Medicine, Gallinger Municipal Hospital

N ORDER to understand the problem of diabetic coma, one should be familiar with certain aspects of brain physiology since the manifestations of coma indicate disturbed function of this organ. The brain has special metabolic characteristics which differentiate it from other organs. It is unique in that it maintains its structure and function almost entirely from the oxidation of carbohydrate.^{1, 2, 3} This is evidenced by the fact that the respiratory quotient of the brain approaches unity and that it removes from the circulating blood a sufficient amount of glucose to meet its energy requirements. The glycogen supply of the brain is extremely small and cannot be considered as a potential source of energy.⁴ Further evidence that glucose is the preferential substrate of the brain has been obtained by studying cerebral metabolism during hypoglycemia.^{5, 6, 7} In this condition the cerebral metabolic rate decreases, and there are marked alterations in the functions of the central nervous system. These changes may be rapidly reversed by the injection of

glucose. If glucose administration is delayed, the individual maintained in a prolonged hypoglycemic state suffers irreversible cerebral damage.^{8, 9} To utilize the glucose supplied to it by the blood stream, the brain requires a large and constant supply of oxygen. In the normal individual under resting conditions, the oxygen uptake of the brain averages 3.3 c.c.O₂/100 Gm./min., and the cerebral blood flow under the same conditions has been estimated to be 54 c.c./100 Gm./min.¹⁰ The mechanisms by which glucose is oxidized in the central nervous system are unknown. Glycolysis and the oxidation of lactate may be inhibited by appropriate substances (iodo-acetate, sodium fluoride, and nicotine), but the utilization of glucose by the brain tissue is not affected.^{11, 12} Co-carboxylase has been shown to be a necessary catalyst for the oxidative decarboxylation of pyruvic acid by the brain, since in vitamin B₁-deficient animals cerebral tissue is unable to oxidize glucose completely, and there is an accumulation of pyruvic acid.^{8, 13} The role of insulin in the metabolism

of carbohydrate is not as yet too clear. According to the work of Cori, in muscle the reaction, glucose + adenosine triphosphate + hexokinase $\rightarrow$ glucose-6-phosphate, is inhibited by anterior pituitary and adrenal cortical hormones.¹⁴ Insulin functions to overcome the inhibitory effects of the other hormones on the enzyme hexokinase. This does not, however, explain completely the action of insulin, since hypophysectomized and adrenalectomized animals are known to be extremely sensitive to insulin. Furthermore, the process of glycolysis does not seem to be affected in the absence of insulin.

It has been shown that insulin is not necessary for the oxidation of carbohydrate by cerebral tissue.^{1, 15} The respiratory quotient and glucose uptake of the brain of animals depleted of insulin (depancreatized dogs) is similar to that of the normal tissue. Lactic acid is not an essential intermediary for the oxidation of carbohydrate by insulin-depleted cerebral tissue. Brain tissue apparently utilizes carbohydrate by a method different from that of muscle, and one cannot with certainty ascribe any significance to these hormones in so far as brain metabolism is concerned.

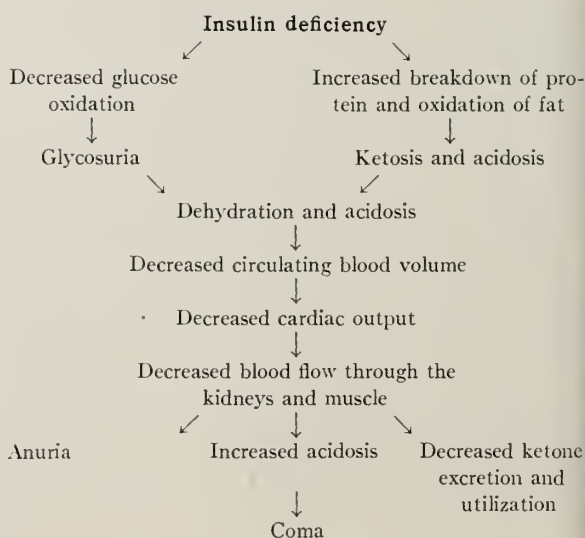
One can conclude, therefore, from this brief physiologic thesis that diabetic coma does not result from an inability of cerebral tissue to oxidize carbohydrate because of a lack of insulin. Coma, therefore, must be ascribed to some other mechanism.

CEREBRAL METABOLISM IN DIABETIC COMA

Diabetic acidosis should be differentiated from diabetic coma. The biochemical disturbances in both conditions may be of the same magnitude, and correction of the biochemical alterations in a patient with diabetic coma may be accomplished as easily as in a patient with diabetic acidosis. Cerebral functions, however, do not seem to be impaired to any considerable degree in patients with diabetic acidosis. Unconsciousness with some degree of circulatory depression in a patient with diabetic acidosis

permits the diagnosis of diabetic coma. In this condition recovery is not the rule, and the mortality is high.

The sequence of the physiologic alterations which may eventually result in diabetic coma may be summarized as follows: In diabetes the fundamental disturbance is the deficiency of insulin. As a result, certain tissues of the body appear to be unable to utilize carbohydrate, and hyperglycemia and glycosuria ensue. In order to meet the metabolic requirements of these tissues, fat is oxidized in greater than normal amounts. As a result, ketone substances are formed, primarily in the liver, at a rate which exceeds the capacity of certain tissues to utilize them, and ketosis and ketonuria occur. The glycosuria and the loss of electrolytes (ketones excreted as sodium salt) cause a reduction of extracellular fluids and circulating blood volume. This eventually results in a decreased cardiac output and a restriction of the peripheral blood flow. The mechanisms by which the body removes and utilizes ketone substances and corrects for alterations in pH are impaired to a great extent by the shunting of blood away from the kidneys and muscle. The more vital organs (heart and brain) are thus bathed by blood with a low pH and a high ketone concentration. These changes may be illustrated as follows:



In general, the many causes of coma may be grouped into the following broad classification. Coma may result from (1) disturbances of the mechanisms supplying the brain with oxygen, (2) alterations in the intermediate metabolism of the central nervous system, and (3) reduction in the amount of substrate made available to the brain.

Thus, in uncontrolled diabetes there are several disturbances which arise that may adversely affect cerebral metabolism. These are (1) disturbances in the acid-base balance, (2) dehydration which may result in decreased cerebral blood flow, (3) ketosis, and (4) hyperglycemia. It should again be emphasized that all these disturbances are secondary to a deficiency of insulin. We have already pointed out that insulin deficiency per se does not seem to influence the metabolism of carbohydrate by cerebral tissue. It may also be added that hyperglycemia is without effect on the central nervous system. We must consider, therefore, these other factors.

One would predict, *a priori*, that in view of the extreme dehydration and lowered blood pressure which exists in diabetic coma, there would be a marked reduction in cerebral blood flow. Quantitative determinations of the cerebral blood flow in patients in diabetic coma reveal that despite the dehydration and a lowered peripheral pressure, the cerebral blood flow, if anything, is more rapid than normal.¹⁶ This rather startling fact may perhaps be explained by the shunting of the available blood to the central nervous system and by a decrease of cerebral vascular resistance, the latter because of the existing acidosis. In view of a normal cerebral blood flow and a normal arterial oxygen saturation, it is unlikely that diabetic coma is due to a disturbance in the mechanisms supplying the brain with oxygen.

Kety and co-workers¹⁶ have further demonstrated a marked decrease in the cerebral metabolic rate of patients in diabetic coma. The average cerebral metabolic rate of 6 patients in diabetic coma was found to be 1.7 c.c.O₂/100

Gm. min., a reduction from the normal of approximately 50 per cent. In the series of patients studied, it was observed that a cerebral oxygen consumption below 2.1 c.c.O₂/100 Gm./min. was associated with unconsciousness incompatible with survival; whereas, in those with a value above that figure, response to treatment was satisfactory. Probably equally as important as the degree of depression of the cerebral metabolic rate is the duration of the depression. It is well known that the brain is extremely sensitive to anoxia and that anoxia maintained for a relatively short period of time results in irreversible cerebral damage, the higher centers being most susceptible.

The cause for the depression of cerebral metabolism in diabetic coma is not yet known. Kety has demonstrated a fair correlation between the cerebral metabolic rate, the arterial pH, and the degree of ketosis. In vitro studies by Rapport¹⁷ on the effects of alterations of pH demonstrate that below pH 7.0 the cerebral metabolic rate decreases with greater acidity. This effect does not seem to be reversible. The role of the ketone substances in the production of coma is still quite uncertain. The administration of acetoacetate to rabbits has resulted in coma. Quastel¹⁸ and Rapport have demonstrated that small amounts of this substance may be oxidized by cerebral tissues. According to the work of Goldfarb and Himwich¹⁹ cerebral tissue neither removes from nor adds to the ketone substances in the circulating blood.

TREATMENT OF DIABETIC COMA

Diabetic coma usually results from poorly controlled diabetes or from the development of insulin resistance. The causes of diabetic coma may be listed as follows: inadequate insulin, dietary indiscretions, infections (bacterial), and endocrine disturbances. Treatment depends, therefore, on eliminating the inciting cause and correcting the deranged physiologic processes.

Insulin.—Since insulin deficiency may be regarded as the primary disturbance, the administration of this hormone is most important.

It is difficult, in view of the many factors which alter its effectiveness, to decide on the optimum dose of insulin which should be given. Even in normal individuals, there is a wide range of susceptibility. In some, 30 units is sufficient to induce hypoglycemic coma, while others may require as much or more than 300 units. In addition to the usual physiologic factors which alter the reaction to insulin, in diabetic coma we must also consider acidosis, dehydration, infection, and disturbed endocrine relationships as possible causes of increased insulin resistance. Large doses of insulin are therefore indicated since one cannot determine with any degree of certainty how much will be utilized to accelerate carbohydrate combustion. There is no doubt that in this condition, standard, rapidly acting insulin is preferable to protamine insulin. In cases with marked dehydration, insulin should be given intravenously to obviate poor absorption.

Patients in coma should be given 100 units of insulin, 50 units intravenously and the remainder subcutaneously, immediately after preliminary studies have been made and the diagnosis established. A dose of 50 units should be given each hour thereafter until the sugar and ketones in the blood or urine begin to decrease in concentration. The blood sugar level is probably the most sensitive index of insulin activity. The dosage is then reduced according to the rate of fall of these constituents and the clinical response of the patient. If, after a period of 3 hours, the blood sugar continues to rise and the blood or urine ketones have not decreased appreciably, an additional 100 units of insulin should be given intravenously. In 275 patients treated at the Deaconess Hospital in Boston, a dose of 500 to 800 units of insulin was frequently required in the first 24 hours.²⁰ It should be emphasized that in view of the possibility of irreversible cerebral damage the administration of insulin in large doses early in the course of treatment is extremely important.

Fluids and electrolytes.—The dehydration

which occurs in uncontrolled diabetes may be attributed mainly to the glycosuria and the loss of base, but in some cases vomiting and diarrhea may be contributing factors. From what has been said, it should be apparent that successful therapy necessitates the restoration of a normal circulating blood volume even though the cerebral blood flow is adequate. The extent of the dehydration may be roughly estimated by the hematocrit or total protein concentration.

The patient with a good myocardium, normal kidney function, and good peripheral vascular tone should not require more than 4,000 to 5,000 c.c. of fluid. This may be given intravenously as isotonic saline until the blood sugar begins to fall. In the presence of cardiac disease circulatory embarrassment may result from a too rapid increase in blood volume. In such a situation the saline should be administered subcutaneously. If the fluids are not absorbed, circulation to the peripheral tissues is inadequate, and slow intravenous infusion is indicated. Some degree of circulatory collapse is present in all cases of diabetic coma. Oliguria and anuria might well be expected in view of the low glomerular filtration pressure. In such cases, much larger amounts of fluid will be required to restore the blood volume, and in some cases as much as 15,000 c.c. have been necessary. If the serum proteins (albumin) fall below normal or if circulatory depression is still present after 4 to 5 liters of saline have been given, whole blood, plasma, or human albumin should be administered.

Potassium depletion with signs of muscular weakness and changes in the electrocardiogram have been noted during and after the treatment of diabetic coma.²¹ It is known that potassium moves in or out of the cell with phosphorus during periods of either tissue catabolism or anabolism. The lack of insulin leads to tissue breakdown and the loss of a large amount of potassium. The administration of insulin leads to a positive nitrogen balance and decreased potassium excretion. The exact mechanism by

which insulin decreases serum potassium is not known, but it may be correlated with shifts of glucose and phosphate into the cell for the formation of potassium hexosephosphate. One should, therefore, be on guard for evidence of potassium deficiency. This might be most easily recognized by electrocardiographic tracings taken several hours after therapy is begun. If signs of potassium deficiency are manifest, potassium chloride should be given intravenously as 25 c.c. of a 2 per cent solution every half hour for 6 to 8 doses.

Changes in serum phosphorus may parallel those observed for potassium. There are some who feel that phosphates should be given to patients to correct the loss resulting from its excretion and the formation of organic phosphate compounds.²² In view of the large stores of phosphorus available in the body, convincing evidence that a lowered serum phosphorus is detrimental to the organism has not yet been presented.

Glucose.—There has been a great deal of discussion regarding the use of glucose in the treatment of diabetic coma. Some workers in this field feel that glucose is not indicated, and they cite the following: Glucose is already present in excessive amounts, and anuria, liver damage, and exhaustion of the islet cells may result from its use. Furthermore, glucose tends to neutralize the action of insulin, and its administration makes it difficult to determine proper insulin dosage.²³

These views cannot be supported by physiologic facts and clinical observation. Many of the disturbances anticipated as arising from glucose administration could never result from the concentration of glucose used in the treatment of diabetic coma. It is true that only a certain amount of glucose can be oxidized by the tissues, but one must not forget the marked glycogen depletion which exists as a result of the starvation and the diabetes. Soskin²⁴ has estimated that it would require approximately 500 Gm. of glucose to replenish the glycogen

depots. The combustion of carbohydrate should be accelerated by a hyperglycemic state, since the rate of a chemical reaction depends to some extent on the concentration of reactants. Clinical experience has taught us that hyperglycemia may be desirable in so far as kidney and liver diseases are concerned. Tolstoi²⁵ has satisfactorily managed diabetics for as long as 10 years disregarding the degree of hyperglycemia and glycosuria. He has not observed any harmful effects of the hyperglycemia in these patients.

The possibility of inducing hypoglycemic shock always exists when giving large doses of insulin and not covering it with adequate glucose. In view of the further depression of cerebral metabolism that would result from hypoglycemia, we feel that this fact alone would be more important than any argument presented against the use of glucose. The following case illustrates the importance of glucose administration to prevent the hypoglycemia that may result from the large doses of insulin required to treat diabetic coma effectively.

A 19-year-old colored male was admitted to Gallinger Municipal Hospital in coma. He had been well until 6 months before admission when he began having polydipsia, polyphagia, and polyuria. Prior to admission he had had burning on urination for 3 weeks and weakness for 5 days. On the day of admission he had been in coma for 8 hours. His hospital course is shown in table 1.

Since it requires approximately 3 hours for standard insulin to exert its maximal effect and in view of the presence of sufficient extracellular glucose to handle the initial large injections of insulin, glucose administration may be safely withheld for the first 3 hours of treatment. If at this time the blood sugar begins to fall, 5 per cent glucose in saline solution should be administered. Glucose administration should be continued thereafter until the ketone bodies have disappeared from the blood or until the patient is able to take carbohydrate-enriched fluids by mouth.

Acidosis.—The diagnosis of coma cannot be made from the CO₂ capacity. It is still believed

by many that the CO_2 capacity reflects the condition and prognosis of the patient. That such a correlation does not exist has been repeatedly demonstrated. It is interesting that the pH may be rapidly restored to normal in these patients by the intravenous administration of

the blood pH is a much more reliable indicator of the acid-base balance than is the CO_2 capacity. If such a procedure is possible, one might administer alkali to restore the pH to normal. Restoration of the acid-base balance may be achieved by the administration of 4 to 5 liters

TABLE 1
Hospital Course of Illustrative Case

DATE	TIME	BLOOD SUGAR	INSULIN	FLUIDS
Jan. 25	8:45 a.m.	571 mg. $\%$	50 u. I.V. 50 u. S.Q.	1000 c.c. saline I.V.
	10:30 a.m.	596 mg. $\%$	50 u. I.V. 50 u. S.Q.	1000 c.c. saline I.V.
	11:00 a.m.		50 u. S.Q.	
Jan. 26	12:30 p.m.	571 mg. $\%$		
	2:00 p.m.		50 u. I.V. 50 u. S.Q.	1000 c.c. saline I.V. P.O.B. 300,000 u.
	2:45 p.m.	571 mg. $\%$		
	3:00 p.m.		50 u. I.V. 50 u. S.Q.	1000 c.c. saline I.V.
	5:00 p.m.		50 u. S.Q.	1000 c.c. saline I.V.
	7:00 p.m.		50 u. S.Q.	
	9:30 p.m.	62 mg. $\%$		1000 c.c. saline I.V.
	10:15 p.m.			150 c.c. 50% glucose I.V.
	11:30 p.m.		20 u. in	1000 c.c. 5% glucose I.V.
Jan. 27	2:30 a.m.		20 u. in	1000 c.c. 5% glucose I.V.
	4:30 a.m.	48 mg. $\%$		
	8:30 a.m.	15 mg. $\%$		1000 c.c. 5% glucose I.V. started
	8:45 a.m.	Patient expired		

sodium bicarbonate, yet the CO_2 content may increase only 10 to 15 volumes per cent, the lag being attributed to the rapid pulmonary ventilation and the blowing off of CO_2 . Thus, calculations according to the formula of Hartman designed to restore the acid-base balance may result in a marked alkalosis. The estimation of

of saline. If the renal circulation is adequate, the normal kidneys may be relied upon to regulate the pH of the blood.

It is also important to point out the lack of correlation between the CO_2 capacity and the blood ketone level. Since the CO_2 combining power is a measure of the alkaline reserve which

is influenced by factors other than ketosis, it should be apparent that these two determinations should not be closely related. A decrease in the blood or urine ketone concentration is perhaps the best indicator that the disproportion between the amount of fat and carbohydrate being oxidized by certain tissues is being effectively corrected by the amount of insulin injected.

SUMMARY AND CONCLUSIONS

The brain depends on the circulating blood glucose as its principal source of energy. In so far as the cerebral tissues are concerned insulin is not a necessary catalyst for the oxidation of glucose. In diabetic coma there is nevertheless a reduction of the cerebral metabolic rate which indicates a reduced ability of the cerebral cells to utilize the available glucose. The cerebral hypoxia is of the histotoxic type, and the acidosis and ketosis may be etiologic factors.

Recovery from diabetic coma seems to be more closely correlated with the degree and duration of the depression of the cerebral metabolic rate than with the other biochemical alterations. In view of the sensitivity of the cerebral cells to anoxia the administration of large doses of insulin is indicated as soon as the diagnosis is established, since it is most important to restore the cerebral metabolic rate to normal as rapidly as possible. Hypoglycemia should be avoided because of its depressant effects on cerebral metabolism. This is best accomplished by the administration of glucose as soon as insulin activity becomes manifest and should be continued for at least 6 hours after the administration of the last large dose of insulin.

BIBLIOGRAPHY

1. HIMWICH, H. E., AND NAHUM, L. H.: *Proc. Soc. Exper. Biol. & Med.*, 1929, **26**, 496.
2. HIMWICH, H. E., AND NAHUM, L. H.: *Am. J. Physiol.*, 1932, **101**, 446.
3. HIMWICH, H. E., AND FAZEKAS, J. F.: *Proc. Soc. Exper. Biol. & Med.*, 1932, **30**, 366.
4. HIMWICH, H. E., AND FAZEKAS, J. F.: *Am. J. Physiol.*, 1943, **139**, 366.
5. HIMWICH, H. E., AND FAZEKAS, J. F.: *Ibid.*, 1937, **119**, 335.
6. HIMWICH, H. E., BOWMAN, K. M., WORTIS, J., AND FAZEKAS, J. F.: *Science*, 1937, **86**, 271.
7. HIMWICH, H. E., AND FAZEKAS, J. F.: *Endocrinology*, 1937, **21**, 800.
8. HIMWICH, H. E., AND OTHERS: *Proc. Soc. Exper. Biol. & Med.*, 1938, **39**, 244.
9. HIMWICH, H. E., BOWMAN, K. M., AND FAZEKAS, J. F.: *Arch. Neurol. & Psychiat.*, 1940, **44**, 1098.
10. KETY, S. S., AND SCHMIDT, C. F.: *J. Clin. Investigation*, 1948, **27**, 476.
11. FAZEKAS, J. F., AND HIMWICH, H. E.: *Am. J. Physiol.*, 1936, **116**, 46.
12. SHORR, E., BARKER, S. B., AND MALAM, M.: *Science*, 1938, **87**, 168.
13. PETERS, R. A.: *Lancet*, 1936, **1**, 1161.
14. CORI, C. F., PRICE, W. H., AND COLOWICK, S. P.: *J. Biol. Chem.*, 1945, **160**, 633.
15. BAKER, Z., FAZEKAS, J. F., AND HIMWICH, H. E.: *Ibid.*, 1938, **125**, 545.
16. KETY, S. S., POLIS, B. D., NADLER, C. S., AND SCHMIDT, C. F.: *J. Clin. Investigation*, 1948, **27**, 476.
17. CANZANELLI, A., GREENBLATT, M., ROGERS, G. A., AND RAPPORT, D.: *Am. J. Physiol.*, 1939, **127**, 290.
18. QUASTEL, J. H.: *Physiol. Rev.*, 1939, **19**, 135.
19. GOLDFARB, W., AND HIMWICH, H. E.: *J. Biol. Chem.*, 1933, **101**, 441.
20. JOSLIN, E. P., AND OTHERS: *New England J. Med.*, 1948, **238**, 401, 437 and 471.
21. HOLLER, J. W.: *J.A.M.A.*, 1946, **131**, 1186.
22. GUEST, G. M.: *Am. J. Dis. Child.*, 1942, **64**, 401.
23. JOSLIN, E. P.: *J.A.M.A.*, 1949, **139**, 1.
24. SOSKIN, S., AND LEVINE, R.: *Carbohydrate Metabolism*. Chicago: Univ. Chicago Press, 1946.
25. TOLSTOI, E.: *Cincinnati J. Med.*, 1949, **30**, 1.

VOMITING ASSOCIATED WITH PREGNANCY

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V

OMITING associated with pregnancy was known to the Hippocratic School (460-370 B.C.), and Soranus of Ephesus (200 A.D.) in his "liber de mulieribus affectionibus" described the symptom and gave a fairly correct picture. Paul of Aegina (625-690 A.D.) named it "vomitus acidus," and Mauriceau (1637-1709) described the syndrome almost as we know it clinically today. He pointed out that a "sympathy" existed between the uterus and the stomach.¹

It was not until 1827 that Dance described the first fatality due to excessive vomiting associated with pregnancy,¹ and in 1851 Paul Dubois² reported at the French Academy of Medicine a series of 20 patients with fatal termination of the condition. His description of the clinical and pathologic picture is considered to be classic, and he also was apparently the first to suggest termination of the pregnancy as a therapeutic measure.

INCIDENCE

In order to determine the incidence of vomiting in association with pregnancy, it is first necessary to define the terminology.

This condition is noted only in the human being.³ Vomiting to a minor degree, that is, one or more times daily but which does not interfere with the nutrition of the patient, occurs in well over 50 per cent of the average private and clinic clientele in this country.^{3, 4} Its incidence varies with the social level directly; it is infrequent in the American Negro and practically unknown in primitive peoples.

Vomiting to a degree which interferes with nutrition but which is not severe enough to require hospitalization occurs in 5 to 10 per cent of

all pregnancies, again varying as to type of patient and medical care.⁵

Those patients who do not respond easily to routine measures associated with hospitalization and who are brought into a serious degree of dehydration, acidosis, and starvation in spite of adequate therapy, are known as patients with "intractable vomiting," "hyperemesis gravidarum," "pathologic vomiters," etc., and the incidence reported varies from 0.5 per cent to 6 per cent.^{1, 3, 6-9}

There seems to be little justification for separating the various degrees of vomiting in association with pregnancy into different classifications until further light is shed upon the etiology. At the present time it seems that, although varying factors may play a part as causative agents, these vary from individual to individual only in degree, and therapy needs to be varied accordingly.

ETIOLOGY

Mauriceau, in seeking to relate the uterus to the stomach by "sympathy," entered early upon theories of causation, and in the following 300 years the plethora of theories to rise and fall have come little closer to a logical explanation.¹ Lindemann and Eulenberg in Germany in 1895¹ and Bouffe de Saint-Blaise¹⁰ in France 3 years later postulated that vomiting of pregnancy was caused by a toxemia, and this theory has held forth for many years without successful contradiction. Although no toxin has been found by many investigators, there has been no proof forthcoming that such a toxin does not exist, and it is one of the most favored hypotheses at this time. Veit¹¹ in 1904 advanced the theory that chorionic villi, being deported to all portions of

the body, by degenerating produced noxious substances and were the etiologic agents of the syndrome. Placental degeneration products have also been implicated by Johnson,¹² and foreign protein of the blood of the baby,¹³ of the husband, as well as products of intestinal intoxication¹⁴ have all been suggested, only to be disproved or discarded.

We may then safely say that although the 'toxemia theory' is very attractive and even at this time has a great number of proponents, there are no data to support it.

HORMONAL THEORIES

The thyroid was one of the earliest of the hormone-producing glands to be investigated for an attempted correlation with the vomiting associated with pregnancy. Albreck¹⁵ (1922) believed that the incidence of vomiting in pregnancy was small in those patients with large, soft thyroid glands, and high in those with small, hard glands. Thyroid is given routinely by some clinicians to reduce the incidence of all "toxemias of pregnancy."

The corpus luteum hormone was implicated as far back as 1899 by Libreton, and as late as 1919 by Hirst,¹⁶ but its use and favor have gradually decreased and at the present time it is not generally advocated.

Since the gonadotropin level rises rapidly in early pregnancy and its time of fall frequently coincides with the usual cessation of the vomiting associated with early pregnancy, several investigations have been carried out on this substance. Bandstrup⁶ in 1939 and Laland and Anker⁵ reported high levels of gonadotropin as compared with normal pregnancies of the same duration.¹⁷ At the present time many clinicians feel that the rapid change in gonadotropin level is responsible for many of the vascular phenomena of early pregnancy, including vomiting, flushes, headaches, and tension.

The adrenal gland has come in for its share of investigation. Billard in 1920 and Rather and Bordet in 1921 gave adrenalin in small doses to

patients who were vomiting in early pregnancy¹ and were pleased with its apparent prompt cure of the condition. Vignes¹⁸ in 1935 repeated this therapy with proper controls and reported that it had no value. Adrenal cortex was reported by Anselmino¹⁹ and others²⁰ to be of value, but other later investigations with the gland extract as well as the newer synthetic fractions have produced no greater rate of cure than that found in controls.⁶

The estrogens have, of course, come into the picture,²¹ and in the opinion of many authors have been used with better than equivocal results. This experience has been repeated, and as therapeutic agents the estrogens have had quite a successful career.²² Studies had already been done demonstrating low estrogen contents of the blood²³ in vomiting associated with pregnancy, and thus this type of therapy had apparent basis in fact. The use of the estrogens to depress the gonadotropin level is now well accepted, and further investigation is now under way to determine its ability to reduce the nausea of early pregnancy.

PSYCHOSOMATIC THEORIES

Ahlfeld²⁴ in 1881 treated a single case of vomiting associated with early pregnancy by psychotherapy, and Kaltenbach²⁵ in 1891 first came out with the statement that the syndrome was entirely neurotic in origin. After several years of study and experimentation, Kaltenbach arrived at the conclusion that persistent vomiting was not only a neurosis, but that it could in no way be dissociated from the vomiting of the neuroses in the nonpregnant (1912). He believed that the main cause of this functional aberration was fear, and Winter²⁶ in 1919 stated that approximately two thirds were produced by fear of childbirth. He carried the hypothesis further, however, by stating that vomiting produced starvation, which in turn caused renal and liver injury with the accumulation of toxins. Schroeder²⁷ in 1922 stated that the vomiting was psychogenic but that, after a prolonged siege of

this state, starvation, acidosis, and intoxication served to make fatality unavoidable. Schwab²⁸ in 1921 wrote that psyche plays an obscure but indubitable part in the origin of vomiting, and that it may be due to loathing of husband, etc. He felt that death was subconscious suicide.

This attitude toward intractable vomiting associated with pregnancy is probably the most widespread in acceptance today, and though it, too, cannot be proved or disproved, the basis of most therapy is consciously or unconsciously directed toward this factor.

MISCELLANEOUS THEORIES

As elsewhere, when the vitamins came into their own, there was quite a stir when it seemed possible that the vicious cycle of vomiting, starvation, acidosis, and death could possibly be broken and a cure effected. Vitamins and fluids were used extensively, and the cure rate by this method was found to be excellent.²⁹ Modifications have been created from time to time, but parenteral feeding and maintenance of nutrition form the basis for all standard therapy.

Specific vitamin therapy has been incriminated on several occasions, and each time enthusiastic reports have been issued before adequate controls were utilized. Vitamin B was used in large doses and considered to be a specific cure, but this idea has not been borne out by further investigation. Vitamin E has been used extensively, but well controlled investigation fails to reveal a significant margin over nonspecific therapy.

Vitamin B₆ (pyridoxine) has been extensively acclaimed³⁰ but was poorly controlled until Hesseltine controlled a small series. He found no significant effect.³¹

Otocaloric tests have been run on patients with vomiting during pregnancy, and it is claimed that pregnant women are more sensitive to this test. The question of vagotonia³² is brought up, but at this time insufficient proof is available.

Fischel³³ postulated that some latent or chronic infection was the etiologic agent for the vomiting of pregnancy. This occurred to him

because he had several severe cases develop at the same time with common exposure. No further data have been brought to bear on this subject, although it is common belief without data that foci of infection are frequently factors in vomiting associated with pregnancy.

The cervix as a cause of vomiting associated with pregnancy has come up for consideration several times throughout the years, and manipulation of this organ by one fashion or the other³⁴ is still in vogue in many quarters. Bennett painted the cervix, and Solomons³⁵ felt that a rigid and firm cervix was the etiologic agent. Dilatation of the cervix was successfully carried out both with and without the production of abortion with cure of the vomiting. De Lee⁴ states a case of what he considers to be undoubted reflex with a patient in whose case retroversion of the uterus was associated with vomiting.

A chemical change in blood colloids has been postulated by von Oettingen³⁶ in 1934, produced by accumulation of metabolites, and several followers have voiced the same opinion, but since technics have been developed to study these structures no further work has been carried out.

Levy-Solal,³⁷ believing that the syndrome was associated with some allergic manifestation of the mother to fetal breakdown products of protein, attempted with what he considered some success to desensitize the mother to peptones. This work has been continued by Drazancic.³⁸ Finch³⁹ thought he could demonstrate sensitivity of the mother to a fraction of the corpus luteum. Recent work has been done toward desensitizing the pregnant woman to blood and spermatozoa of the husband on the impression that sensitivity to these substances may play a part. Data, except for an occasional case, are nonexistent, and no controls are available.

Tarnier, Bonnaire, and later Alvarez¹⁴ pointed out the intestinal factor in vomiting of pregnancy, and Tweedy followed along on this theory.¹

Dorey in 1917 attempted to desensitize the mother to placental extracts, and the placental

connection with the vomiting syndrome has been widely acclaimed.¹

CHEMICAL CHANGES

Needless to state, the chemical changes in blood and urine vary widely with the type of patient investigated. In general, it may be said that the most frequent chemical change noted in all vomiting of pregnancy is the increased excretion of ketone bodies in the urine,^{40, 41} the decrease in urinary urea, and the increase in urinary ammonia.⁴² These findings have been recognized since 1906, when W. Williams first studied the urea and ammonia excretion of patients normally pregnant and those associated with vomiting. It was believed that, if the nitrogen as NH_3 exceeded 10 per cent of the total nitrogen excretion in the urine, the prognosis for the patient was poor. This index is still used in some quarters, but today one could probably more safely say that, if this index rises above 25 per cent with adequate therapy, the prognosis is not good.

Decrease in chloride excretion is a constant early finding, and later definite changes in blood chlorides become evident.¹ The etiology for this, as well as the change from urea to ammonia in nitrogen excretion, is no doubt due to loss of chlorides in the stomach contents. It has been demonstrated that, even if the vomitus of these patients is not acid and shows no titrable free acid, the chloride content is still high because of regurgitation of duodenal contents.

In the severe or not too well controlled patients one finds urobilinemia in well over half of the cases.¹ Increasing bilirubin levels become obvious first by chemical tests on blood and urine, and are then clinically manifested as jaundice.

Changes in blood nonprotein nitrogen are not noted in controlled cases⁴⁰ and only late in the severe and uncontrolled ones. The presence of renal disease on which pregnancy has been superimposed, of course, would alter this finding, and an infection or other insult of sufficient degree to

produce lower nephron nephrosis (other than acidosis and dehydration) would lead to early retention of nitrogen.

PATHOLOGY

Since few of these patients ever die, nothing is known of the pathology in mild cases. In severe cases the pathology is not specific of the disorder but secondary to acidosis, dehydration, and starvation.

Dubois² in 1851, in the presentation of the 20 fatalities, adequately described the pathology of vomiting associated with pregnancy. Other series have been added to his, but little additional information has been forthcoming.^{43, 44}

The liver has always been the chief source of interest; in general, there is central fatty infiltration and on occasion central necrosis. Periportal or midzonal necrosis is rarely seen in the absence of chloroform or other known hepatic toxins.

The renal lesion is that of granular changes in the tubule cells and collections of casts in the tubular luminae. Subcapsular hemorrhages may be present.

The brain, according to Sheehan,⁴⁴ occasionally shows bilateral hemorrhages in the mammillary bodies, the floor of the third ventricle, and in the nuclei of the corpora quadrigemina. Changes in the intestine and adrenals are usually not significant save for petechial hemorrhages and dehydration.⁴⁴

The lungs are usually edematous from terminal failure or early pneumonia.

THERAPY

The treatment of vomiting associated with pregnancy resolves itself into very simple means in the vast majority of cases. Only 2 of the present group of private patients needed other than supportive ambulatory therapy.

There are any number of routines employed for the treatment of the mild forms of the condition, and they are probably almost equally effective. The favorite ones are (1) frequent

small feedings, (2) avoidance of liquid and solid foods at the same time, (3) mild sedation before the first meal and during the day, (4) reassurance, and (5) any of the above in combination.

When the mild forms do not respond and seem to be getting more severe, the procedure is altered somewhat to (1) discontinuance of routine work with additional bed rest at home, and (2) some sort of "specific" therapy such as vitamin B₁, B₆, vitamin E in large doses, and psychotherapy in the form of frequent visits, with or without a definite effort deliberately to uncover a psychic basis for the state. These so-called specifics seem to result in a larger percentage of cures when given parenterally.

In order to test the efficacy of a standard therapy composed of a combination of active principles used in vomiting associated with pregnancy, an experimental group was formed of 50 patients whose vomiting was of a grade more than annoying and who, although not ill enough to hospitalize, were either losing or failing to gain weight.

They were given 2 bottles of 12 capsules each labeled no. 1 and no. 2. The capsules in bottle no. 1 contained pyridoxine hydrochloride 50 mg., sodium pentobarbital 15 mg., benzocaine 100 mg., nicotinamide 25 mg., and methionine 100 mg.* Capsules in bottle no. 2 contained lactose. Both capsules and bottles were identical.

The patients were told that the capsules varied in strength of ingredients, and that they were to decide which was the most favorable. One half of the patients were to take the capsules of bottle no. 1 for from 3 to 4 times a day; then with completion of that bottle, the capsules of bottle no. 2 were to be taken in the same fashion. The patient reported in person in a week on the efficacy of the drug. The remaining half of the patients were started on bottle no. 2 first and the above routine followed in reverse order.

The results are shown in table 1.

It is, of course, difficult to assess value of any medication in such a condition in which the symptoms are self-limited and of great variability. These patients are usually seen at their worst on the first visit, and merely the assurance that the pregnancy is uncomplicated constitutes therapy. The rate of improvement associated with the use both of the experimental and the control capsules is between 65 and 80 per cent, which compares favorably with most of the rates obtained with the so-called specifics.^{31, 45} One would wonder, also, if the difference between the apparent improvement over the controls by the experimental group was not due solely to the effect of phenobarbital.

TABLE 1

The Relation of the Control Capsules to the Experimental "Specific Materials" in the Treatment of Vomiting Associated with Pregnancy

	TOTAL PA- TIENTS	CURED		IMPROVED		NOT IMPROVED	
		Number	Per cent	Number	Per cent	Number	Per cent
Experimental	50	11	22	30	60	9	18
Control	50	8	16	29	58	13	26

Further progression of symptomatology renders hospitalization imperative, since by this time ketonuria is very definite and the mucous membranes are dehydrated.

On hospitalization with bed rest the first efforts are directed toward restoration of fluid and chloride balance. The degree of dehydration can usually be told clinically, but additional laboratory methods may be used to determine the actual degree, such as determination of the cell volume, which is a cheap, simple and accurate method, or by total serum protein determination. The state of the chloride balance may be determined by a chemical determination of blood chlorides, and if these are more than minimally depressed, a CO₂ combining power (CO₂ content is more accurate when available) will aid in calculation of the amount of base that should be

* The author wishes to thank Dr. Katherine Kuder and the Ortho Products Company, Raritan, New Jersey, for generous supplies of these capsules used in this experiment.

immediately used. If dehydration is severe, a blood urea determination will help add to the total picture, and occasionally an unsuspected renal lesion will be uncovered which will be more important later.

The immediate problem is to restore the fluid and electrolyte balance for the patient. This may be done orally with the aid of hospitalization, rest, and sedation in cases in which it could not be effected at home. Others will need intravenous or subcutaneous routes, leaving the stomach empty for 24 hours while this is being accomplished. It will be found that over three fourths will need no further therapy. A heart-to-heart talk with the obstetrician, with discussion of problems in general and specific obstetrical problems, such as pain relief, complications that the patient has heard of or been exposed to, etc., will usually clear up and bring to light a psychic barrier if one exists.

Occasionally one finds a patient who is resistant to the therapy at this stage. She continues to vomit, seems to have no problem that she is willing to talk about, if she recognizes one, and in general is no better. In the past 3 years, following the extensive use of this type of examination by the armed services to ferret out subconscious fears or aversions, sodium amytal interviews have been given in 10 of these intractable cases. Unfortunately, this work has not been controlled, and it cannot be stated definitely that these patients would not soon have ceased vomiting. The abrupt cessation following the interview, with the suggestion left that the problem is either solved or of small magnitude, gives one the impression that the recovery period is definitely shortened. One complete and one partial failure in the last 10 serious cases have been observed with this method.

Patients may continue to vomit on oral feeding and even under the intravenous and subcutaneous therapy until the avenues for infusion are no longer utilizable. Veins may eventually become thrombosed and the subcutaneous tissues of the legs, back and submammary areas develop

annoying degrees of cellulitis. Tube feeding may be resorted to, particularly with the Miller-Abbot tube, if the patient is cooperative. With uncoöperative patients who pull the tube out this avenue is uncertain.

Pseudo-abortion has been resorted to in some individuals after all the above methods have failed, and there are those who claim no failures. The patient is taken to the operation room, anesthetized, and the vagina and thighs painted with a colored antiseptic. She is then awakened and the inference is made that she is no longer pregnant.

Abortion is rarely performed as a therapeutic measure in vomiting associated with pregnancy. Before the use of intravenous fluid, vitamins, plasma, proteins, and carbohydrate in adequate amounts, it is understandable how a situation could develop that would require interruption of the pregnancy. With the present facilities it is much more difficult to develop such severe malnutrition, although therapy may have to be continued, at least intermittently, for many months.

UNSOLVED PROBLEMS

We may in general dismiss the vitamin theories as being without adequate physiologic background or proof, and the same may be said of the uterointestinal reflex theories. Chronic infections and sensitivity of the central nervous system with vagotonia may probably be discounted unless further data are brought to bear.

The toxemia theory, or at least some substance produced by the mother or fetus, which causes a vomiting of central origin, has yet to be disproved or proved, and if we may consider sensitivity to rapid changes in hormone levels, then we may well have a reasonable explanation, at least for the onset of vomiting. We are well acquainted with those patients, few but definite, whose first knowledge of pregnancy is nausea and who a few days later recognize also that the menses have been delayed. Common also are those patients who are given estrogenic prepa-

rations of high potency by mouth who become severely nauseated and whose nausea and vomiting cease within 12 hours after discontinuance of the drug. We have yet to prove, therefore, that the initiating stimulus to the nausea and vomiting of early pregnancy is not hormonal, probably physiologic, and dependent on many interrelated factors such as level of gonadotropin, level of estrogen, relative rate of rise of these substances, sensitivity of the vascular and central nervous systems to these impulses, and so on, all organic manifestations.

We are very hard pressed to believe also that the functional background and environment, as stressed by Ahlfeld and Kaltenbach, do not play a very large part in the picture once initiated, and that those patients whose vomiting plays more than a short-lived and minor role are actually psychiatric problems. There is a great deal of information, and undoubtedly an even larger amount of misinformation, concerning the psychiatric aspect of pregnancy, and there is no doubt that in this very complex civilization it is probable that psychologic desires do not necessarily coincide with inherent biologic drives. The fear of pregnancy and labor, the loss of physical attractiveness, the necessity of sharing the attention of the husband with another, the withdrawal from the outside world necessitated by becoming a mother, insecurity, etc., no doubt create quite a problem for the subconscious mind of such a bundle of inhibitions as the human female.

Hirst¹⁶ states that the pregnant woman is anxious in an enhanced degree above her non-pregnant sister, and it is true that she cries more easily, has perversions of appetite, and is more critical of persons and acts.

Menninger¹⁷ and others express the opinion that vomiting in pregnancy is an unconscious rejection of pregnancy, the feminine role, or some act associated with pregnancy, i.e., intercourse or labor, or the child itself. Women of this type are biologically feminine but psychologically masculine to a greater or less degree, and the

failure of integration manifests itself in symptoms.

It is usually very difficult to place blame on one specific type of fear, to prove unconscious rejection, or to show failure of integration of biologic drive and psychologic wish, but in general with prolonged and tactful contact with the patient, bringing obvious unsolved personal problems to the surface and attempting to solve or minimize them, the largest portion of these patients respond by cessation of vomiting. Suggestion by direct methods, by hypnosis,⁴⁸ or by narcohypnosis, may be utilized, and each in a limited group will leave few patients who are unable to continue the pregnancy. Abortion is possibly necessary in a very restricted field but may be dispensed with in most instances for more fundamental and less drastic procedures.

These patients die of dehydration, starvation, and radical alteration of electrolyte and fluid balance produced by vomiting and failure of retention of food and fluid. Under the present methods of infusion and intubation it would seem possible to keep any patient alive and in a good state of nutrition for the full term of pregnancy where necessity demanded. Chemical analysis of blood and careful fluid intake and output recording will serve to direct such therapy.

It must be stressed that other causes of vomiting exist, and that acute bacterial infections, acute virus infections of lungs and intestinal tract, hepatic (infectious hepatitis) and gallbladder diseases, and other medical conditions have masqueraded as vomiting associated with early pregnancy.

BIBLIOGRAPHY

1. SCHJØTT-RIVERS, E.: *Acta obst. et gynec., Scandinav.* (supp. 1), 1938, **18**, 1.
2. DUBOIS, P.: *Bull. Acad. de méd., Par.*, 1851, **17**, 1557.
3. HALL, M. B.: *Am. J. M. Sc.*, 1943, **205**, 869.
4. DELEE, J. B.: *The Principles and Practice of Obstetrics*. Philadelphia: Saunders, 1933.
5. ANKER, H., AND LALAND, P.: *Acta obst. et gynec., Scandinav.*, 1940, **20**, 216.
6. BANDSTRUP, E.: *Ibid.*, 1939, **19**, 376.

(Continued on page 227)

CHRONIC MYELOGENOUS LEUKEMIA TREATED WITH URETHANE

Report of a Case

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URETHANE (ethyl carbamate) belongs to the group of organic esters of carbamic acid. It is closely related chemically to urea and carbomal. It was synthesized in 1834, but until recently it has been used chiefly as a laboratory anesthetic, having a rapid and potent hypnotic effect in animals but a very feeble and uncertain action in humans.

Haddow and Sexton¹ have reviewed the experimental work leading to the recent trial of urethane in the treatment of malignant growths which led to the discovery that it induced remission in patients having leukemia. They were unable to determine the mode of action of urethane but concluded that the drug acted on growth primarily by affecting the processes of maturation and that in leukemia it tended to remedy some deficiency in these processes.

Paterson et al² used urethane in some cases of advanced malignant disease and observed that there was frequently a fall in the leukocyte count. This suggested to them a possible use of the drug for the treatment of leukemia. Thirty-two cases of leukemia (19 myeloid and 13 lymphatic) were observed over periods ranging from 5 weeks to 11 months. They stated, "The effects produced, represented in most favorable cases by a fall in the white cell count to normal limits, a tendency for the differential to approach a more normal pattern, diminution of the size of the spleen and enlarged lymph nodes, and a rise in the hemoglobin, are remarkably similar to those obtained by standard methods of deep X-ray therapy." There was no indication that permanent benefit resulted in either myeloid or lymphatic leukemias.

Beddinger et al³ found the drug of little use in acute leukemia, although a fall in the leukocyte count was produced, but observed that in the chronic forms there was a tendency for the blood pattern to approach a more mature type.

Hirschboeck et al⁴ likewise stated that the drug is of no use in the acute forms of leukemia even though severe leukopenia may be produced. In chronic lymphatic leukemia, the results were variable, but when effective were comparable to those obtained with X-ray therapy. They found urethane most consistently successful in controlling chronic myelogenous leukemia and considered it to have the following advantages:

1. Ease of administration and regulation of dosage
2. A minimum of toxic side actions
3. A desirable sedative effect
4. Low cost.

Webster⁵ reported a fatality in a case of myelogenous leukemia treated with urethane and mentioned a previous fatal case described by Paterson. Webster's case developed agranulocytosis. He concluded that the drug, apparently nontoxic in normal humans, is a selective mitotic inhibitor with principal action in leukemia on the early myeloid cells, and that to prevent occasional toxic reactions in sensitive individuals careful observation was necessary; he concluded also that further investigation was needed to ascertain proper procedure, dosage, toxic levels, and mode of action before wide use is advocated.

Urethane is administered in various forms orally: in simple syrup, in chloroform water and syrup of orange, in gelatin capsules, in enteric-coated capsules and tablets, in powdered form,

and in 40 to 50 per cent solution given intramuscularly. The usual dose is 1 gram 3 times daily, but the dose has varied from 1 to 6 grams daily. Occasional gastric irritation, as evidenced by nausea and vomiting, may be obviated by the use of enteric-coated capsules. In the case to be reported nausea was overcome by using powders instead of gelatin capsules and by giving antacids, either bicarbonate of soda or aluminum hydroxide suspensions. This was not a serious objection in the present case. Urethane has not been used over any extended period of time in the treatment of humans, the longest time previously recorded having been 6 months. This patient, having received the drug for 18 months, is therefore of particular interest. Paterson recommended discontinuing the drug if the leukocyte count fell below 20,000, but this has not been necessary in this case.

REPORT OF CASE

Mr. A. F. E. H., a white male, 54 years old, an executive in a large corporation, was first seen on April 4, 1945. He came in for a general checkup. He stated that for 6 years he had had aching pains in the legs, particularly noticeable when he relaxed at night in bed, and that these had been worse recently. For the past 2 years he had had some backache which was improved following the extraction of an infected tooth but which had recurred about 6 weeks ago. Otherwise he had been in excellent health.

His appetite was good and his bowels regular. He had lost about 6 pounds during the preceding fall but regained most of it. He used tobacco, alcohol and coffee temperately and ate a well balanced diet. He took no unprescribed medication other than occasionally an aspirin tablet for headaches. He stated that he had had chronic headaches for 30 years, usually due to nervousness, but these had improved recently. He had never been seriously ill. His appendix had been removed in 1940, his tonsils in 1943.

He gave a rather extensive account of carcinoma in his family. His mother, aged 85, still living, had carcinoma of the breast which was successfully removed 10 years before. His father died at the age of 78 of carcinoma of the stomach, and a paternal aunt had had carcinoma. His father was also said to have had mild diabetes. Two siblings were living and well. There was no other history of familial diseases.

Physical examination revealed a well nourished and well developed, middle-aged white man who was alert, cooperative, and did not appear ill. The temperature was 98° F., the pulse rate 88, the respiratory rate 18, and the blood pressure 140/80. The eyes, ears, nose and throat were normal. There was no peripheral lymphadenopathy. The heart was normal in size, shape and position. The sounds were regular, slow, and of good quality. There were no murmurs. The lung fields were clear. The abdomen showed a well healed McBurney scar. It was otherwise negative. The liver and spleen were not palpable. The genitalia were normal. Rectal examination showed a small sentinel pile but was otherwise negative. The prostate was small and normal in shape and consistency. The extremities showed normal arterial pulsations, normal reflexes, normal sense of position, and normal vibration, pain, touch, power, speed and coordination.

In view of this normal physical examination, the laboratory reports were rather startling.

The hemoglobin was 12.1 grams or 81.4 per cent. The red blood cells numbered 3,950,000 per cu. mm. of blood. The white blood cells numbered 126,600 per cu. mm., with 93 per cent polymorphonuclear leukocytes, 6 per cent lymphocytes, and 1 per cent eosinophils. There were 33 per cent segmented forms, 19 per cent band forms, 4 per cent young forms, 30 per cent myelocytes, and 7 per cent myeloblasts. The myeloid cells were strongly peroxidase positive. Subsequent blood counts confirmed these findings. The patient was referred for X-ray therapy. Between April 30, 1945 and May 5, 1945, he received the following at the rate of 100 RU daily: 300 RU to the anterior spleen and 300 RU to the lateral spleen. A rapid and striking decrease in the leukocyte count with a tendency to a more mature differential count was obtained. Appropriate supportive measures in the form of liver and iron therapy and supplementary vitamins were given.

In October 1945 the hemoglobin had risen to 106 per cent or 15.4 grams, and the leukocytes numbered 12,000. He had gained 3 pounds in weight and felt well except for some intermittent backache. The spleen was not palpable. In November 1945 the patient developed a severe left occipital headache of the same type from which he had always suffered but far more intense than before. Neurologic examination was normal. He was referred to a neurologist, who made a diagnosis of occipital neuralgia and gave him an infiltration of 10 c.c. of novocaine. He was immediately relieved and free of pain for a day or two. The headache returned for about 2 weeks but then disappeared without further treatment. In September 1946 he returned complaining again of the recurrence of cramps in the legs and excessive fatigue toward the end of the day, although except for these findings he had been

well. He also complained of a mass and a gurgling sensation in the left groin with occasional pain radiating to the testicle.

Physical examination revealed a weight loss of about 13 pounds. The tip of the spleen was felt, hard and slightly tender, descending 3 to 4 fingerbreadths below the costal margin. A direct left inguinal hernia was present. The hemoglobin had dropped to 91 per cent. The leukocytes had risen to 148,800. The urine showed a good concentration, a trace of albumin, a moderate number of finely and coarsely granular casts and an occasional red cell. He was referred again for X-ray therapy and between September 25 and October 2, 1946 received the same dose of X-rays over the same locations. Following this he felt more tired for a while and the hemoglobin dropped sharply to 70 per cent but picked up again by the end of November. A hernioplasty was performed in late December of 1946 with an excellent result and no complications. By March of 1947, however, after an interval of only 6 months, the leukocytes had again commenced to rise and reached 48,900.

Because of the much shorter interval of improvement following X-ray therapy, it was decided to give urethane a clinical trial in this case. Very little literature was available on the subject at this time, and the patient's full coöperation in the experimental trial was obtained. He was started on 2 grams daily for 1 week and then 1 gram daily. On this régime, however, his leukocyte count continued to rise, reaching 84,200 on March 19, 1947. The dose was thereupon increased to 4 grams daily. By April 7, 1947 the leukocyte count had fallen to 20,400 with a corresponding shift to the right in the Schilling index and improvement in the hemoglobin. The dose was reduced to 3 grams daily. On April 18, 1947 the count had fallen to 9,200 with a more normal differential, although the total neutrophil percentage was still 89 per cent. The dose was reduced to 2 grams. The following week the leukocytes numbered 6,750 with 73 per cent neutrophils. He complained of being unable to sleep without the use of nembutal. The dose was continued at the 2-gram level until June 18, when the white count had risen to 16,650. The dose was then raised to 3 grams daily. On July 6, the count was 11,400. The urinalysis was negative. The physical examination was normal. The spleen was no longer palpable. Fluoroscopic examination of the chest was normal. The dosage was maintained at this level. The weight and appetite were, and continued to be, well maintained. On August 16, 1948 he had dropped his dose to 3 grams daily, but he found that deliquescence had damaged his capsules so that when he emptied them, a procedure which he found relieved his heartburn, some drug adhered to the capsules and his daily dosage for some time had probably been below 3 grams. The count had risen

to 88,600 with a shift of the Schilling index to the left. Accordingly, the dose of urethane was raised to 5 grams daily. When seen again on September 22 the count had fallen to 36,300. The differential was more normal. The hemoglobin had dropped to 80 per cent. He had been under severe mental strain caused by an illness in his family. He was having symptoms suggesting a hyperactive stomach. These were successfully relieved by the use of aluminum hydroxide gel and tincture of belladonna. Urethane was continued at the 5-gram level. When last seen, October 23, 1948, the hemoglobin had risen to 90 per cent. The white cells had dropped to 10,900, and he was feeling better. His dosage was reduced to 3 grams.

CONCLUSION

A case of myelogenous leukemia has been successfully treated for more than 18 months with the continuous administration of ethyl urethane. During the course of therapy no evidence of toxicity has been noted. The drug was successful in controlling the leukocyte count after apparent insensitivity to X-ray radiation had commenced to develop.

The patient has submitted successfully to surgery, and a secondary rise of the leukocyte count while under treatment has been successfully controlled by increased dosage.

Although he had retired from his executive position, he has continued to lead an active life on his farm, sometimes working 10 to 12 hours daily in the field.

Urethane may be considered as an additional therapeutic agent for the treatment of chronic myelogenous leukemia. It is at least as effective as X-ray radiation and as safe, cheaper (costing from 2 to 5 cents a day), and more convenient, particularly when the patient is not located near a large medical center where such therapy is available.

This case is also of particular interest because of the 18 months of continuous treatment, which is three times greater than cases previously reported in the literature. It suggests that continuous long-term administration is practical except in highly sensitive individuals.

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SILAS WEIR MITCHELL AND THE TIRED NERVES

EDWARD PODOLSKY, M.D.

Brooklyn, N. Y.

THERE are still many stories making the rounds of how Dr. Silas Weir Mitchell used to manage and treat patients that other doctors were at a loss how to handle. Dr. Mitchell was a specialist in diseases of the nervous system, one of the best that ever lived. He had an immense knowledge of how the mind influences the body in myriads of puzzling and mysterious ways and how dramatic effects are quite often necessary to obtain results. There is the story of how he set the bedclothes afire at Providence Hospital in Washington to make an hysterical woman not only get up and walk but get up and run. There is also the story of a woman in the last stages of a brain tumor who had been laid out on a bench in a clinic waiting room as having an attack of hysteria, and Dr. Mitchell instantly recognized the fact that she had a brain tumor.

Silas Weir Mitchell was the first of the great American specialists in nervous diseases; he was also an eminent novelist and poet. He was born on February 15, 1829, the third of a family of 9 children. His father was John Kearsley Mitchell, who was also a physician of some eminence. He was also a devotee of literature and had some talent as a poet, having published a volume of poems which attracted favorable attention. Silas Weir inherited his father's talents many times magnified. Of his father he said: "My father was the best physician I ever knew. He never failed in resource, and always had something in reserve. Also for carefulness, watchful attention and swift decisions, he had no equal in my memory."

The father of Silas Weir was well able to provide for his numerous children. The family lived in a large house in a fine section of Phila-

delphia. Silas Weir considered himself fortunate to be part of a large family. He said: "There are good reasons why the children of a numerous family should excel. The interdiscipline of large sets of children is valuable; it is fine training for a larger world."

At school Weir was not quite happy. These early years were "a vale of tears and fears." Yet even in those years he had a rather vivid imagination through which he escaped from the sordid realities of life. He imagined himself meeting pink elephants walking down sedate Chestnut Street and seeing a gold carriage drawn by 10 stalwart horses. He obtained most of his education by devouring a wide miscellany of books that came his way.

When he was 15 he entered the University of Pennsylvania where he made a fairly good record as a student. He was of slender build, rather pale, and during his second year at the University he began to cough up blood. His father thereupon gave him a boat and encouraged him to spend as much time as possible on the water, or in the woods and fields around Philadelphia. In time he overcame this tendency to blood-spitting, and he developed into a tall, lean, vigorous young man.

After he had graduated from the University of Pennsylvania young Weir was still at a loss as to what he wanted to do as his life's work. His father insisted that he must reach a decision without delay. At the spur of the moment he said that he would become a physician. His father's reaction was not quite favorable. "You are wanting in nearly all the qualities that go to make success in medicine," he said. "You have brains enough, but no industry." At the beginning Weir had no particular interest in medicine,

but he felt that once having declared that he wanted to be a doctor he would have to go through with it.

He entered Jefferson Medical College. In time he acquired a deep and abiding interest in medicine. He found that it was actually much to his liking. He went through his medical training with great credit to himself. After receiving his M.D. degree in 1850, he studied in Paris for 6 months, where he came under the influence of Claude Bernard, the leading physiologist of that day. Upon his return to the United States he became an assistant to his father, whose health was beginning to fail. In addition to his routine medical practice young Dr. Mitchell had acquired from Claude Bernard an enthusiasm for research, and he spent every moment he could spare in his laboratory where he worked quite often until 2 o'clock in the morning.

One day a man offered to sell Dr. Mitchell half a dozen rattlesnakes. He bought them, because only a short time before he had had a discussion with another physician about a supposed antidote for snake poison. He conducted exhaustive tests and found that the antidote was of no value whatsoever, but his interest in snake venom had been aroused and for many years he conducted minute and painstaking investigations on snake poisons. This resulted in a volume, "Researches on the Venoms of Poisonous Serpents," which he and Dr. Edward T. Reichert published in 1886.

In 1858 Dr. John Kearsley Mitchell died, and young "Dr. Weir," as he was known, was left to carry on, paying off his debts and helping support his mother and younger brothers and sisters. He himself had been married only a few months before, and he had his hands full, but he managed to get by after a fashion.

The War Between the States found Weir Mitchell ready to help in a medical capacity. Early in the War he was appointed an acting assistant surgeon in the Union Army and assigned to duty in one of the Philadelphia hos-

pitals. It was at this time that his interest in diseases and injuries of the nervous system was aroused. Little was known about nerve injuries at that time, and the young doctor had made so favorable an impression on the Surgeon General that he created a special hospital of 499 beds where Dr. Mitchell carried on his neurologic work in association with Dr. R. G. Morehouse and Dr. W. W. Keen. "The cases were of amazing interest," Mitchell wrote. "They included every kind of nerve wound, palsies, choreas, stump disorders. . . . In this hospital massage was first used to restore action to limbs in which healing nerve wounds left the muscles palsied or for the rigidity of splinted cases."

These experiences were the foundation of a book, "Injuries of Nerves and Their Consequences," which Mitchell, Morehouse and Keen wrote and published in 1872. Dr. Mitchell also decided to give up his general practice and devote his time thereafter to nervous diseases only. His greatest fame came as the result of his development of the "rest cure" or the "Weir Mitchell treatment." This consisted primarily of prolonged rest, isolation, overfeeding and massage. For many years, patients came from all over the world to Philadelphia to take this treatment under his supervision.

A famous story is told in connection with his "rest cure." A middle-aged Philadelphia society woman had consulted him for treatment of neurasthenia. He had put her to bed, treated her with rest and diet until he felt that she was well enough to be up. Then he told her she must get up and go about her business. She protested that she was not well enough. Days went by, the patient still refusing to leave her bed. Finally, he stood by her bedside and said: "Madam, if you don't get out of bed, I will get into bed with you." She still refused to budge. Dr. Mitchell with great deliberation, and with many flourishes, removed his coat, his vest, his tie and his collar. By the time he started on his trousers the scandalized woman capitulated and hastily rose from bed.

The "rest cure" met with some adverse criticism from the medical profession. A particular target for attack was a book for the general public entitled "Fat and Blood," published in 1877, in which Dr. Mitchell gave a full account of the treatment. The volume had a very large sale and was translated into French, German, Italian and Russian. Five years previously Dr. Mitchell had published a book entitled "Wear and Tear" in which he warned the American people that their tendency to work too hard and play too little was likely to lead to an increase in nervous disorders. Some of his colleagues were of the opinion that writing books for the public was undignified and unprofessional and a form of self-advertising. But Mitchell was not much impressed by these criticisms.

Dr. Mitchell was a great teacher who taught his pupils individually or in small groups. He was once asked if he had ever been a professor. "Yes," he replied, "I was a member of the board of the University of Pennsylvania, when at a meeting I was asked to retire from the room. In a few minutes I was asked to return and was informed that I had been elected professor of physiology. I immediately resigned. Thus, you see, I was professor for about five minutes."

Although Mitchell had written many books on medical subjects for the general public as well as novels, he had never written a textbook. He was asked why. "Because," he said, "after the subject is gathered, correlated, written, corrected and published, the subject matter would be about seven years old when it was born."

Dr. Mitchell was also quite an ingenious mechanic, and a room in the old Orthopedic Hospital in Philadelphia was full of apparatus he had constructed for the measurement of tremors, the testing of muscle tension and of reflex responses, and for the study of gaits. Dr. Mitchell had devised a bench with a slightly elevated extra seat on it held up by a ball-and-socket arrangement so that it would tilt a little with each movement of the patient. Starting by balancing himself a few seconds at a time, this patient

gradually developed his back muscles until he could sit up alone and carry on his work as the chief executive of a large corporation.

Dr. Mitchell was interested in many other fields in addition to medicine. In politics he helped to break up the political ring of Philadelphia, and he was called by Presidents William McKinley and Theodore Roosevelt to Washington and consulted in national affairs of state.

In literature S. Weir Mitchell became one of the leading novelists of his day. He began his career as a writer of fiction with a story which was sent to the *Atlantic Monthly* by a friend of Dr. Mitchell's without the latter's knowledge. This was promptly accepted. The name of the story was "The Case of George Dedlow," and it told of the tragic experience of a young man who during the War Between the States lost both arms and both legs.

His first long novel, "In War Time," was ready for publication when Dr. Mitchell was in his fifties and already world-famous as a specialist in nervous diseases. This story appeared first serially in the *Atlantic Monthly* and later in book form. This book had a fairly good sale, as did several other novels which followed it.

It was when Dr. Mitchell was nearly 70 that he wrote the novel which won him immortality as a novelist. It was a romance of the American Revolution called "Hugh Wynne, Free Quaker."

He had been gathering historical background material for this novel for 7 years, and the story had reached a fairly complete form in his mind during all this time. He began the actual writing on one of his annual vacations in Newport, and he was able to do a complete first draft of this novel in 6 weeks. However, it was revised and rewritten a great many times before he felt that it was ready for publication. It became a great success at once, selling over 200,000 copies in a short time after publication. Dr. Mitchell was now established as one of the leading novelists of his day.

His next 2 books, "The Adventures of

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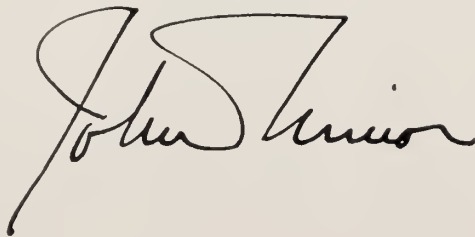
President's Page

ON WASHINGTON'S VOTELESS STATE

One can but feel that the lack of the franchise has a definite effect on the energy and interest which our population shows toward local activities in this great and beautiful Capital City. One feels that there is a loss of something vital which ties the individual with bonds of affection to the place of his birth or residence because he feels that he is an operating part—however small—of the body politic.

One sees this vividly in the attitude of the sick poor of Washington. In other great cities of the country where they are really citizens and where, because of the factors mentioned above, they feel that the city belongs to them, they consider it their right to criticize. But they criticize as one does in the family—with love in one's heart and with pride in what their city represents to them, and with faith that it will take care of them in their need.

One can but believe that were this autonomy given to Washington, many of the problems of public indifference, inadequate giving by those able to give, and the sense of defeatism engendered by our voteless state would be changed.

A handwritten signature in cursive script, reading "John D. Stinson". The signature is written in dark ink and is positioned at the bottom right of the page.

Editorials

A PROBLEM OF MEDICAL LICENSURE

Now that the question for more and better medical facilities throughout the country is again before the public, it seems pertinent that there be presented here at least one aspect of the problem in which, without increase in taxation, valuable improvement could be effected.

The full, or better, utilization of the 200,000 physicians now practicing medicine in these United States could be made more effective by the simple device of removing the barriers which now restrict the practice of these physicians.

The practice of medicine in the United States is controlled by license. This, manifestly, is as it should be. License, in turn, depends upon the successful negotiation of examinations that are to test the applicant's ability to treat sickness in humans.

Now the matter of licensure in the states is in a unique and, we might say, unfortunately, complicated status. In other countries, when the physician has successfully passed the examinations which his state requires, he is thereby authorized to practice medicine anywhere in his country. Not so in the United States. Here, we have not only 48 separate State Boards of Examiners to satisfy, but are also confronted by the Medical Examining Boards of the territories, Alaska, Hawaii, Puerto Rico, and the District of Columbia. Not unless and until a physician licensed in one of these states or territories has successfully passed also the examination which another state or territory may demand of him may he undertake to practice medicine in the state or territory into which he wishes to transfer.

This requirement of reexamination, which is

further complicated by stipulations as to Basic Science examination, internship, type of hospital training, etc., obviously raises formidable obstacles for the transfer of a physician from one state to another. This becomes particularly troublesome when in this age of specialization the physician, who for years has specialized, must now stand an examination in subjects that he has long abandoned and does not propose to practice.

This confusing and utterly undesirable situation stems from the fact that when this country was young, and the original states united in a common cause, the right to confer license to practice medicine was not surrendered to the central Government. Let us admit that these rights retained by the individual states served a good purpose in their day. However, at the present time, thanks to the excellent influence of the Council on Medical Education and Hospitals of the American Medical Association, the quality of medical schools and, with it, medical education in this country, has been brought to a standard second to none anywhere in this world.

There is no further need, therefore, to maintain these individual state barriers. The absurdity of the present practice is highlighted by the experience in the recent World War in which thousands of physicians from all over these United States competently took care of millions of enlisted personnel. Manifestly, the fact that the physician might have been licensed in the state of Maine did not affect his competence to take care of the enlisted personnel from the state of California, or elsewhere in this country.

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia.

Now, however, that hostility has ceased, the physician licensed in a particular state may not undertake to transfer and practice his profession in another state until, as stated, he again is examined and passes an examination in the state into which he expects to transfer.

The consequence of this restrictive practice has led to a concentration of physicians in the states and cities where they have had their training and are licensed. This, in turn, deprives the country of a more ready distribution of the available medical talent.

It is recognized that an amendment to the Constitution, removing the basic obstacles, is practically an unthinkable device. However, the cure could be effected by having the various State Boards adopt uniform standards in the original examination, so that a physician who had successfully passed such an examination

would automatically be recognized as competent to practice his profession in any other state.

It is up to the medical profession to decide whether they wish to continue to practice medicine as citizens of the United States anywhere in the country, or to practice medicine as residents of a single state.

The public is overwhelmingly for medical service anywhere in the United States and does not consider the physician more competent because he has obtained his license in one state as against another, just so that it can be assured that the physician is the product of a reputable school of medicine and that the physician enjoys a good reputation, professionally and otherwise.

GEORGE C. RUHLAND, M. D.
Health Officer, District of Columbia

THE DOCTOR'S OBLIGATION TO HIMSELF

The doctor as an individual is faced with the necessity of offering objective evidence that he is aware of his relation to a changing social order. More than that, he must show a desire to participate actively and positively in directing this change. He is deterred from assuming this role not only by reluctance and perhaps inertia, but, more important, by an actual inability springing directly from his all-consuming interest in professional pursuits.

In the 19th century it became impossible for any man to encompass even in general knowledge the whole field of science. Therefore most scientists withdrew first from the nonscientific world. In this mental monastery departmentalization began and developed until today in medicine alone there are numerous relatively isolated divisions. Rationalized monomania has meant much to the advance of science but is reacting to the disadvantage of scientists.

In the evolution of animal species there are numerous illustrations of the principle that extreme specialization has led to disaster as environment has changed. It is true that man

himself is not a highly specialized animal. His hand is less specialized than that of the monkey. His brain by its very broad development and synaptic variation is versatile but not specialized. Only in psychoses does stereotypy of cerebration resemble the specialization characteristic of insect nervous response.

An analogy may be drawn between the proven hazard of physical specialization in species evolution and the specialism which is the outgrowth of a proper functional specialization in science. This "specialism" causes a group of specialists to see the rest of the world in the narrow terms of their own group requirement.

The social differences even among nonscientific groups must be among the basic considerations influencing the doctor's relation to them. This present urgent need is well stated by Lawrence Drake in his article in this issue (see page 207).

The doctor no longer can content himself with doing only his scientific job. The implications of science in today's world are such that its power must be used for social good lest its evil

potential destroy us all. The doctor's new social role must be positive but it must also be convincing to the several groups involved. It must be mutually helpful and mutually determined with these groups.

Therefore the energies of the individual must not be dissipated in fighting his brother as to method. There must be concerted teamwork to

do the job. Thus it is that today's doctor is obligated over and above his professional duties to understand his relation to the rest of the social order, to take real pains to educate himself in these broad fields where he must also work. To fail in this duty as individuals is to insure failure of the profession to do its best job and therefore to insure its degradation.

D. S.

BLOOD TRANSFUSIONS

Attention has been focused recently on a suit resulting from a transfusion death several years ago. The facts of the case are unimportant except that the patient apparently died from a blood incompatibility.

Such an incident should reemphasize in our minds that blood can be a dangerous therapeutic agent. In former years we needed no reemphasis. Reaction rates kept physicians keenly sensitized to the danger. The past war with its widespread use of blood and the miraculous recoveries made possible by blood tended to allay doctors' fears. In the din of war it passed unnoticed that 60 per cent of Rh negative men transfused became sensitized to the Rh factor. The number of deaths due to blood incompatibility is lost in the large number of cases of lower nephron nephrosis.

Since the end of the war much has been done to decrease the risk of blood transfusions. Typing serums are now standardized and those sold today can be depended upon. Typing and cross-matching technics on the contrary have not yet been standardized, and there are a few hospitals using the crude technics used 10 years ago. Too, the technicians lack standardization in their degree of experience with these technics. This is all too true of the night shift when interns and residents are called upon to carry out procedures which require experience for interpretation. The simple mixing of two bloods on a slide is no longer an adequate cross match. "Blocking" antibodies of the Rh specificity can be demon-

started only by incubation in a serum suspension of red cells.

There are other preventable causes of transfusion reactions. They are almost entirely related to the human factor, e.g., mislabeling of blood bottles, mixing of pilot tubes, and giving the wrong bottle of blood to the patient. These factors may obtain in poorly organized blood transfusion services where too many people are associated with blood processing and dispensing. These can be prevented by using selected personnel and organizing a system of checks on bottle labeling.

To overcome the technical sources of reactions the Section on Pathology and Laboratory Medicine of the Medical Society is drawing up a standardized procedure to be followed in the typing and cross matching of blood. These procedures will be recommended to every pathologist in the community and surrounding areas and if carried out should reduce accidents to a minimal figure. It is earnestly hoped that the clinicians will lend support to such a measure and encourage the following of the standard procedures to the letter. In times of emergency haste can frequently waste the efforts of many days of labor. Foresight and preparation for blood needs likewise can relieve the pressure associated with the emergency case. More protection can be afforded the patient by such planning. From the legal point of view such a standardization will afford more protection to the doctor and hospital. Prevent-

able accidents will be eliminated and incidents that arise in association with transfusions can be accurately labeled nonpreventable by the great weight of experience of the community.

The doctor can rightfully point with pride to these improvements in technic and the efforts made to disseminate this knowledge to the small-

est communities. These facts are overlooked by our critics all too readily in these days. Despite the efforts of mankind to invent new and more horrible methods of human destruction the doctor continues his patient and plodding efforts to preserve life and mend the damage done.

O. BENWOOD HUNTER, JR., M.D.

CARE OF THE HARD OF HEARING AND THE DEAF IN WASHINGTON, D. C.

The week of May 8, 1949 has been designated as National Hearing Week. It is timely then to emphasize to the medical profession the fact that the hard of hearing and the deafened individual in any walk of life constitute a major community problem, since in our highly complex society one life touches so intimately the lives of others.

There is developing a greater awareness of the seriousness of this situation, and many workers in varied fields aside from that of medicine are occupying themselves intensely with this problem; among these are teachers, research workers, scientists, educators, psychologists, social workers and electronic engineers.

Particular attention is being paid to the recognition of deafness in infancy and early childhood. For instance, it is now generally recognized that German measles in the mother in the first trimester of pregnancy may cause various congenital defects, especially of the cochlear apparatus. New tests are being devised that will more accurately diagnose these hearing defects. No longer do we admit that the congenitally deaf child must become a mute. At an early age intensive training is begun and most of these children learn to speak. The parents of a deaf child need no longer feel a hopeless despondency about this individual's future. The mother is taught to help train the child and she becomes an active, integral part of the educational picture.

Widespread audiometric tests in the public schools are picking up early hearing defects, many of them remedial. Those which are not amenable to treatment can at least receive the

benefit of special training. The removal of hypertrophied adenoids and tonsils and the use of surgery and radium on recurrent lymphoid tissues causing eustachian blockage have cured many children with hearing losses.

The Lempert fenestration operation for otosclerosis has been instrumental in opening up new lives for a significant number of hard-of-hearing individuals, and improving technics along this line offer even greater hopes.

It is in the field of rehabilitation, however, that our greatest advances and hopes lie. We are successfully endeavoring to take the deafened, handicapped child from the pre-kindergarten age through all phases of our modern educational system including college, and whenever possible returning him to a normal group if it is felt that he can hold his own. In this way he becomes a valuable, contributing member of his community.

The individual who loses his hearing acuity in later life is helped through training to again assume his position in his group both economically and psychologically. Extremely valuable in this connection is the continual improvement of the modern hearing aid, indeed a miracle of engineering skill. Its efficiency and compactness have helped tremendously to break down psychological resistance to its more general use.

It is evident that the physician should be aware of what is going on in this field of work. In Washington we are extremely fortunate in having excellent facilities to handle rehabilitation problems. For instance, we have the only college in America for the education of the deaf,

Gallaudet, and the Army Center for Aural Rehabilitation is situated at the Forest Glen Annex of Walter Reed Hospital; here they are pioneering in many new technics.

It was thought that it would be valuable to consolidate in one list all the facilities available for the hard of hearing and the deaf in Washington, D. C. and vicinity (see page 212). The efforts of Miss Rose V. Feilbach, Executive

Director of the Washington Hearing Society, and Dr. Leonard M. Elstad, President of Gallaudet College, who were instrumental in compiling this list, are greatly appreciated. It is hoped that all physicians become familiar with these facilities, since it is obvious that deafness is no longer a purely otologic problem.

IRVIN HANTMAN, M.D.

In and Out of Focus

BY THE OBSERVER

Let's Stand Together

Discord in the ranks of the medical profession has in recent months troubled many physicians. They are deeply concerned lest the profession become divided and an easy prey for extremists. They do not expect, nor do they believe it desirable for physicians to be of one mind on the current medical issues. But they insist there should be no doubt left in the minds of the people that where basic principles are concerned the profession stands united.

Now, these physicians have no illusions about the AMA or their state and county units. As they well know, leaders of these organizations have often not measured up to their responsibilities. Frequently they have been inept, especially where public relations is concerned. More serious, those active in the 1930's failed to grasp the significance of the social trends and their probable effect upon medicine. As a result physicians of today are severely handicapped in their attempt to solve controversial medical care problems. By and large, however, medical leaders have given a good account of themselves.

Having admitted the shortcomings of our leaders, what about the rank and file of physicians? Have they measured up to their responsibilities? Have they made it a point to

inform themselves in regard to the matters which are so disturbing to the medical profession? What about their attendance at business meetings? If they attend, what, if any, suggestions have they had to offer? Do they give adequate support to their organizations?

There is little point in pursuing this line of questioning further because the answers to them are obvious to those familiar with medical organizations. A majority of the rank and file are apathetic and know little about organization affairs. They are content to allow a minority to carry on but reserve the right to be critical of their leaders.

Happily there is a brighter side to this picture. The quality of medical leadership is improving. Medical organizations are rapidly becoming conscious of the serious and complex problems facing the medical profession and the need for progressive leaders. There is encouraging evidence of a desire of the rank and file to inform themselves so they can take an intelligent part in discussions. That has recently become evident in Washington where general problems of medicine have been under discussion at business meetings of the Medical Society. Business meetings have not been so well attended in a long time.

There are, of course, still many of our members

who do not take any interest in these matters. The following exhortation is for them: Inform yourself in regard to health legislation, compulsory and voluntary health insurance, the activities of the Medical Society and its views on health problems. The hour is late but not too late. Your medical journals are full of the material you should read. You might also talk with officers of the Society. Learn something about their activities and what they think about the medical situation. You may not agree with them or the views expressed in the medical journals but you are acquiring a background.

Plan to attend the Annual Business Meeting of the Society on May 4. Here there will be an excellent opportunity for you to make suggestions to our delegates to the AMA, and to learn what the Society has done about many important matters this past year. Whatever you do, learn the facts before you advance an idea or make a proposal.

If all of our members would show this interest in the Society's affairs, there need be no concern about the future nor about unity of the medical profession. It is apathy, indifference, lack of information, and failure to assume responsibility that are serious threats to the stability of the medical profession.



*Plain
Talk*

Lest there be any misunderstanding about these observations, it should be understood that the views expressed are those of the writer. It is your Observer's belief that they coincide with the opinions of many members of the Medical Society; however, they are not officially those of the organization.

The purpose of these comments is to examine objectively some of the more unpleasant aspects of the situation which now confronts the medical profession. This is not an easy thing to do under the circumstances. Discussion of controversial issues has been highly charged with prejudice and ill feeling. Your Observer must therefore attempt to divest himself of bias if the matters

here discussed are to be viewed in proper perspective. These observations are a sincere attempt in this direction.

The present medical controversy had its beginnings in the early 1930's when the Committee on the Costs of Medical Care made public its findings. There had previously been much written on the costs of medical service but the Committee's report and its recommendations stimulated Nation-wide discussion. Lines were soon drawn between those who favored compulsory health insurance and the medical profession, as represented by the American Medical Association, which opposed its adoption. Thus began the controversy which has continued down to the present time.

It was some years following the Committee's report before the AMA gave its approval to voluntary health insurance, it having taken the position that it was inadequate and would inevitably lead to a compulsory system. The success of some of the voluntary plans led the AMA to change its mind. It is now an ardent advocate of voluntary medical prepayment plans.

The point in reviewing these developments is this: Differences over the economic approach to medical care are still at the core of the controversy. There is general agreement on other matters, such as the need for the extension of public health services, Government subsidization of medical research, and the expansion of medical educational facilities. But both sides are still far apart as to the proper method of compensating physicians for their services to the people. One group believes that required medical care can be made available to all who need it only under a Federally-controlled system of compulsory insurance; the other, that it can be done better under voluntary plans.

Nearly everyone intimately familiar with this subject has such deeply rooted convictions that even the soundest arguments have little effect. Nevertheless, further discussion seems warranted as there are still a large number who are

uninformed and therefore receptive to new points of view.

Having thus set the stage, your Observer will proceed with his examination of the attitudes and behavior of opposing sides. Proponents of compulsory health insurance might as well come in for your Observer's attention first.

While undoubtedly some advocates of a compulsory system are prompted by political or personal considerations, your Observer credits most of them with sincerely believing that the program they propose is the best solution where medical costs are concerned. There are, of course, a substantial number of left-wingers who make any radical measure their cause, but the majority, it appears to your Observer, are average citizens who believe the proposal a good one. A handful of the profession are in the radical category. Like most small minorities, they make a noise out of proportion to their size.

Radical or otherwise, proponents of compulsory sickness insurance have fought hard for their cause. While they have made progress, some of the tactics which they have employed in an effort to win support may in the long run prove costly.

Not long ago a Government official dug deep into the past to revive the controversy between the AMA, some of its constituent bodies, and Group Health Association, Inc. of Washington. This official completely ignored the pleasant relations which for a number of years have existed between GHA and the Medical Society of the District of Columbia, an AMA affiliate. The temptation to arouse old animosities which might well be forgotten in an effort to win support for compulsory health insurance was more than he could resist. This sort of thing is unjustified on any count.

There are many other examples where appeals have been made to prejudice. Recently high public officials charged that the AMA "gagged" its members, otherwise they would favor the Administration's health program. As every

AMA member knows, there is no truth in such a statement. State and county medical societies, all of them units of the AMA, are autonomous. If they disagree with the parent organization, they are free to do as they please. It does not in any way alter their status as affiliates of the AMA.

While physicians know this, the people do not. The AMA gains little by protesting that the charges are untrue, for the damage has already been done. That is why such statements are so mischievous. They unfairly undermine confidence in all medical associations.

Whenever the opportunity offers, Administration officials make glowing promises. Under a compulsory system, they say, the people will receive all the medical care they want; there will be no change in the present methods of medical practice; there will be absolute free choice of physician; everything will be just as it was except that bills will be paid by the Government.

Now, this is not so and those who make such statements must know it. Of course, unlimited medical service will not be available. That just isn't possible, nor is it contemplated. Of course, there will be a change in medical practice; it could not be otherwise when the physicians' independent status is swept away.

Now there is plenty to criticize about the AMA and its constituent and component units. They, too, have in the past adopted questionable tactics in attempting to win favor for their views. As a first step in setting their house in order they should withdraw their endorsement from organizations which are propagandizing in their behalf. These, with few exceptions, have proved themselves liabilities. Their emotional outbursts have been most embarrassing to many physicians and their propaganda has for the most part been of a low order.

Little can be gained, in your Observer's opinion, by heated radio discussions. So-called forums of the air, for the most part, depend for their interest upon recriminations and bitterness. Discussion is limited because of the time factor

and the listener gains little from the performance except the pleasure derived from observing the dexterity of the opponents. Exhibitions of this sort do not reflect credit upon the physicians participating in them or upon the medical profession. Participants usually resort to bitter attack and sometimes they indulge in personalities. As a result, the debate degenerates into bickering. Unless assurance is given that dignity will prevail and a calm approach be made to the problems under discussion, the physician would do well to avoid taking part in radio forums. Health is too vital a subject to be treated thus lightly.

The physician is by nature conservative. As a scientist, he accepts nothing until carefully controlled experiments demonstrate its value. This, of course, accounts only in part for his failure to make a realistic approach to current medical issues.

The truth is that the doctor knows very little about medical socioeconomic problems. Furthermore, he has no great desire to inform himself on the subject. In contrast to his approach on scientific matters, he is willing in these matters to be governed by opinions of his colleagues who may be equally uninformed. It is not surprising therefore that his reactions to the present situation are emotional rather than intellectual. Of course, this is all wrong and weakens the medical profession's position. At the very least the physician should know basic facts before he comes to any conclusion.

Fortunately for the physician, his national association, the AMA, has become much more progressive in recent years. Its recently announced National Educational Program is evidence of this fact. This is encouraging, but the AMA will not get far with its program unless greater numbers of physicians know more than they now do about its objectives and devote themselves to their realization.

Much more might be said about the objectionable practice of parties in the medical controversy but space will not permit further

elaboration. Your Observer hopes that objectionable propaganda and appeals to prejudice will be abandoned as something unworthy and not in the best interest of our people where their health is concerned. Our common objective is to make available the best medical care possible to all the people. To realize this objective, the medical profession must provide leadership which will win public confidence. Without such confidence it can make little headway. Advocates of compulsory sickness insurance should not forget that in order to accomplish their purpose they need the coöperation of the medical profession, and that includes the AMA and its affiliates.

It is time that these differing points of view be resolved. It is time that leaders in the fight for compulsory health insurance sit around the table with the medical profession of this country in a spirit of friendliness and coöperation. There is not just one way to solve medical care problems. It may well be that the best plan has not yet been thought of. Nothing would be worse for the recipients of medical care than a profession serving reluctantly.

Politics, animosity, prejudice, subterfuge and obstinacy is hardly a formula one would prescribe for coöperative effort. The only prescription that will have the desired effect must include substantial amounts of good will and common sense.

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The Executive Offices

Even those who are fairly well informed are not aware of the extent and variety of the activities at the Medical Society's Executive Offices. They know even less about the demands made upon a comparatively modest staff. However, if it were not for the loyalty of the staff it would be impossible to carry on the Society's present program. Naturally the heaviest demands fall upon the executives. They work long hours, sometimes under considerable pressure.

The Society's office staff consists of the Execu-

tive Director and Secretary, Assistant Secretary, Assistant Editor, two secretaries, a bookkeeper, a typist, and a receptionist. Business offices are located in the Society's original building at 1718 M Street, N.W., and on the first floor of the building at 1710 M Street, N.W., which was recently remodeled for the use of the office staff and personnel of the MEDICAL BUREAU. The BUREAU employs a staff of 18, consisting of an office supervisor, two supervisory operators, 14 operators, and an information clerk.

If one is to visualize what goes on in the Society's headquarters it is necessary to know something about the duties of key personnel. The Executive Director and Secretary heads the staff. He is responsible to the Executive Board for the administration of the Society's offices. It would be tiresome to the reader to go into too much detail in regard to his duties. However, mention of a few of them will illustrate what his responsibilities are.

In addition to being Secretary of the Society he is also its Treasurer. He is secretary of all boards and committees—there are some 32 of them. Most of the correspondence in connection with the activities of these bodies is handled by him or goes through his hands. He is the liaison officer between the Medical Society and the press, and he frequently meets with the newspaper editors and news reporters. He also represents the Society in civic and other bodies and participates in many national and local medical meetings. He is Managing Editor of the MEDICAL ANNALS, a task which requires much time. Although he is not active in its management, he is responsible to the Executive Board for the MEDICAL BUREAU. Since the inception of the Society's medical prepayment plan, MEDICAL SERVICE OF THE DISTRICT OF COLUMBIA, he has had considerable to do with its development and operation. He is at present its Secretary and ex officio member of its Board of Trustees. Plans for the ANNUAL SCIENTIFIC ASSEMBLY also receive his attention.

Having anticipated the publication of these

observations, the Secretary kept a record of a typical day in his office. Here is the result:

8:45 a.m. to 1:40 p.m.

Discussed material for the MEDICAL ANNALS with the Assistant Editor.

Read the mail and dictated letters.

Called the Department of Vehicles and Traffic in regard to difficulties encountered by a physician.

Talked to the son of a physician he had known in Milwaukee.

Listened to a complaint of a registered nurse who said that her services were not being used because of discrimination.

Responded to a telephone inquiry from an X-ray firm official about ruling of the Federal Communications Commission in regard to installation of X-ray apparatus in physicians' offices.

Talked with President of Society about material for the MEDICAL ANNALS

Discussed the purchase of office equipment with the Assistant Secretary.

Informed Army officer that slides he had used at a previous meeting safely reposed in the Secretary's office.

Talked to the Chairman of the Committee on Industrial Medicine about a communication to be directed to a physician about a complaint.

Responded to an inquiry about the licensing of foreign physicians in the District of Columbia.

Conferred with AMA representatives about Interim Meeting to be held in Washington in December 1949.

Talked with the Administrator of Hospital Service Agency about medical care for the indigent in the District of Columbia.

(Lunch)

2 p.m. to 5:30 p.m.

Received a call from a layman who wished to help a foreign physician obtain a license in the United States.

Discussed matters relating to MEDICAL SERV-

ICE OF THE DISTRICT OF COLUMBIA with its President.

Edited material for the MEDICAL ANNALS, and read an editorial that had been submitted for publication.

Responded to a telephone request for names of the Nominating Committee.

Talked with a Government official about the emergency medical service in the District of Columbia in the event of disaster.

Reviewed the details of a proposed radio broadcast with a probable sponsor.

Checked material needed by the Nominating Committee for its meeting.

(Dinner with official of MEDICAL SERVICE)

8:00 p.m.—11:00 p.m.

Meeting of Board of Trustees of MEDICAL SERVICE.

The duties of the Assistant Secretary, likewise, keep him busy long hours daily. He manages MEDICAL BUREAU, which now has over 600 subscribers. This in itself is a sizable business operation. He attends board and committee meetings and records committee minutes. He purchases all supplies subject, of course, to approval by the Secretary-Treasurer and the Executive Board.

The Assistant Secretary holds a similar position with MEDICAL SERVICE OF THE DISTRICT OF COLUMBIA. He keeps a record of the proceedings of its Board of Trustees. He devotes considerable time to the ANNUAL SCIENTIFIC ASSEMBLY, making the hotel arrangements, corresponding with exhibitors, and attending to numerous details.

Office personnel is directly under his supervision. Among the tasks performed by them are: the keeping of membership records; assistance to Sections of the Society (including the addressing of notices of their meetings); answering innumerable inquiries directed to them by members and lay persons; listing applicants for

positions in physicians' offices and making their names available to physicians; typing letters, reports and articles for the MEDICAL ANNALS; mimeographing and addressing all communications and notices to Society members—there are now over 1,600; and keeping financial records up to date. These are not all their assignments by any means but the important ones.

From the above it can be seen that there are few dull moments for the Assistant Secretary. Not listed among his duties and those of the Secretary are the telephone calls which are numerous, constant, and time-consuming.

The Assistant Editor devotes nearly all of her time to the Society's publication. She corrects all copy submitted before turning it over to the Editor; she reads proof; seeks new material; handles all phases of the advertising except soliciting and bookkeeping; and carries on correspondence relating to the MEDICAL ANNALS. She, too, is kept busy on the telephone with many calls from members, the printer, advertisers, business firms and others.

Work as hard as they might, executives would accomplish little without their secretaries and other assistants. The latter actually do the job and do it exceedingly well.

Yes, the Society's Executive Office is a busy place. Why not drop in, doctor, and see your headquarters in action.

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A Chapter Nears Completion

When this column first made its appearance in July 1943, your Observer stated, "In and Out of Focus" will be a forum for many views, sound and otherwise." As readers know, this policy has been closely adhered to. All shades of opinion have been expressed on a wide variety of subjects. In most instances your Observer's comments have been kept to a minimum, the individual quoted being allowed to speak for himself.

It would be too much to expect all readers of the MEDICAL ANNALS to approve of this column

or to agree that it serves a useful purpose. For the benefit of the critical, your Observer freely admits its defects. These are partly explained by the fact that the column is prepared under considerable pressure. He is painfully conscious that on occasion he may have been unfair or have said the wrong thing. These occurrences, of course, he regrets and likes to believe they are more than offset by the educational value of his material. Readers in Washington and elsewhere have led him to believe this to be true.

One of the purposes of this column has been to enlighten physicians in regard to social and economic problems of medicine and the crisis resulting therefrom. Month after month in the past six years varying views on this subject have been presented in as brief and readable form as possible in the hope that Washington physicians would thereby acquire a better understanding of these problems.

Now that the final stage seems to have been reached in the controversy over medical care, there would seem little point in continuing to emphasize socioeconomic subjects much longer. Your Observer has about concluded that in the fall this column should take on a "new look," providing, of course, that the Editorial Board approves. There are many other matters which might be profitably aired in this column. Perhaps more attention should be devoted to medicine in the Nation's Capital. Comment on the problems arising daily at the Medical Society's Executive Offices might possibly prove enlightening and entertaining. At any rate, this column will make one more appearance in its present form. As usual, it will not appear in the June, July and August issues of the *MEDICAL ANNALS*. In the interval your Observer will give some thought to its future.

What have you to suggest?

T. W.

REPORT OF THE EXECUTIVE BOARD*

Although your Board is only required to report annually, important matters are constantly arising on which the Society should act promptly. Special business sessions are therefore necessary at intervals throughout the year. Of these sessions, the one usually scheduled for the first Wednesday in March is the most important. Not only are officers for the ensuing year nominated at this meeting but there are annual financial and membership reports and other accumulation of business to be disposed of. This year there is more than the usual amount of business to be dealt with because of the urgent problems confronting the Society. Your Board is well aware that many of you weary of lengthy reports. This report has therefore been made as brief as possible, consistent with the material which must be presented.

Workmen's Compensation Fee Schedule and General Information and Regulations for the Guidance of Physicians: There are few committees of the Society on which greater demands are made than the Committee on Industrial Medicine. As its title implies, this committee devotes its attention to problems in the field of industrial medicine. It also adjudicates complaints lodged by insurance companies against members and vice versa. As you can readily imagine, the latter is a time-consuming and not a par-

ticularly pleasant task. Nevertheless it has been performed to the satisfaction of most of those directly affected.

One of the most arduous tasks undertaken by the Committee in the past year was the revision of the Workmen's Compensation Fee Schedule adopted by the Society on March 6, 1946. The revision was forwarded to the membership for its information on January 7, 1949. It was the result of months of labor and many meetings and conferences. Numerous specialty groups were consulted during its preparation. After its completion, conferences were

* Adopted at a special Business Meeting of the Society, March 2, 1949.

held with the Washington Claims Managers Council which gave its approval.

When the revised schedule and General Information and Regulations for the Guidance of Physicians were forwarded to members, they were advised that the Society's Executive Board had given its endorsement. The letter stated that the schedule and regulations had, upon the Board's instruction, become effective January 1, 1949 because the Board felt that it should become operative as soon as possible. This action was taken subject to the approval of the Medical Society as a whole.

The Committee on Industrial Medicine has informed the Board that unless economic conditions become more stable they propose to revise the schedule annually if necessary.

Amendments XVII and XVIII to the Constitution and By-laws: These amendments were read at a previous meeting and are presented tonight for adoption. The amendments read as follows:

AMENDMENT XVII

Section 1. Article I of Chapter II and Article V of Chapter II of the Constitution and By-Laws are hereby repealed.

Section 2. The members of this Society shall be of six classes: active, life, affiliate, associate, honorary and intern and resident.

Section 3. Affiliate members shall be doctors of medicine, citizens of the United States eligible for active membership in the Society, who, having offices outside its jurisdiction are active members of another constituent association of the American Medical Association. They shall be elected in the same manner as active members; they shall have the privilege of attending and participating in the scientific sessions of the Society and shall receive its publications and notices of its scientific meetings; they shall be entitled to all the benefits of the Society but they shall not vote or hold office in the Society, shall be subject to its discipline and pay such dues and assessments as may be imposed by the Society. Affiliate members, upon becoming eligible for active membership, shall make formal application for active membership. On failure to do so within three months, they shall cease to be affiliate members.

Section 4. Associate members shall be doctors of medicine who are not eligible for active or affiliate membership or scientists engaged in collateral lines of activity or research. They shall be elected in the same manner as active members; they shall have only the privilege of attending and participating in scientific sessions of the Society and shall receive its publications and notices of its scientific meetings; they shall not vote or hold office in the Society, shall be subject to its discipline, and pay such dues and assessments as may be imposed by the Society. Associate members upon becoming eligible for active or affiliate membership shall make formal application for such

active or affiliate membership. On failure to do so within three months, they shall cease to be associate members.

Section 5. Intern or resident membership shall be limited to hospital interns or residents who are citizens of the United States, who earn less than \$2,400 per year, and who are not engaged in the private practice of medicine. They shall be elected in the same manner as active members; they shall have the privilege of attending and participating in scientific sessions of the Society, and shall receive its publications and notices of its scientific meetings. They shall not vote or hold office in the Society, but shall be subject to its discipline. Intern or resident membership shall terminate when the income of the hospital intern or resident exceeds \$2,400 per year, or if he engages in the private practice of medicine, or upon the termination of his internship or residency.

AMENDMENT XVIII

Section 1. Section 2 of Amendment X of the Constitution and By-laws is hereby repealed.

Section 2. Affiliate members, commencing January 1, 1950, shall pay \$25.00 annual dues.

Section 3. Associate members, commencing January 1, 1950, shall pay \$10.00 annual dues.

Section 4. Intern or resident members, commencing January 1, 1950, shall pay \$5.00 annual dues.

While the amendments are self-explanatory, it might be well to comment briefly on the reasons for their submission.

There is a growing number of physicians who are licensed to practice in the District of Columbia and nearby counties in Maryland and Virginia who have offices in the District and in one of the nearby counties. As they are engaged in practice and have offices in the District, they are ineligible for Associate status. If they wish to affiliate themselves with the District Society, they must apply for Active membership or, if they are full members of a nearby county medical society, for Affiliate membership.

If this were not required, Associate members would enjoy all the benefits to which Active members are entitled except the privilege of voting. This would be unfair from the standpoint of membership dues. The amendment providing for an Affiliate membership is offered as a solution to this problem. Commencing January 1, 1950 these physicians would become eligible for Affiliate membership and be required to pay \$25.00 annual dues, \$5.00 less than Active members.

While Section 4, providing for Associate membership, is new, it does not change the status of pres-

ent members in this classification except for those who may be eligible for Affiliate membership. The dues for Associate membership remain the same.

The Board has previously submitted an amendment providing for Intern and Resident membership and has revised the original to conform with the recommendations made when it was returned to the Board for further study.

Purchase of Property at 1720 M Street, N.W.: Several months ago the purchase of the property at 1720 M Street, N.W., adjoining the Society's building at 1718 M Street, N.W., was proposed. Investigation was thereupon made to establish the value of the property and whether purchase was advisable at this time. The Board finally decided that it would be in the Society's interest to acquire the property; however, it was handicapped for the lack of funds. The Board concluded that an effort should be made to interest a physician or a group of physicians in acquiring the property with the understanding that if the Society was agreeable it would be purchased at a later date.

Upon instruction of the Board, the Secretary-Treasurer discussed the matter with Dr. Oscar B. Hunter, who finally acquired title to the property. Dr. Hunter suggested several ways in which the Society could finance the purchase of the property at what it cost him without investing its own funds; however, no conclusion was arrived at until the meeting of the Executive Board on January 31, 1949, when the Board had before it a recommendation of the House Committee that the property be acquired. The Board concurred and instructed the Secretary-Treasurer to discuss the purchase with the Union Trust Company of Washington, with which the Society has been doing business for many years. Out of these discussions have come the suggestions as to how the purchase might be financed.

First of all, however, the status of the Society's present real estate holdings should perhaps be made clear. The building and the lot at 1718 M Street, N.W., in which this meeting is being held, is valued on the Society's books at about \$145,000. That includes furniture and fixtures. The actual value, perhaps, exceeds that amount substantially. The property is free of encumbrance. However, some years ago the Society borrowed \$6,500 from its Bequest Fund to pay off the mortgage. This loan is still unpaid. The building at 1710 M Street,

N.W., adjoining this building on the east, was bought in 1937 for \$30,090.80. There is now a first mortgage on this property in the amount of \$16,750, which is being paid off in semiannual installments.

Taking into account these obligations, the question arises how best can the purchase of 1720 M Street, N.W., be financed. The latter property can be bought for approximately \$55,000. Alternative proposals for the financing of the purchase are as follows:

1. To mortgage the properties at 1710 and 1720 M Street, N.W., to the maximum limit which would increase the present mortgages by about \$20,000. As stated above the mortgage on 1710 M Street, N.W., is \$16,750 and on 1720 M Street, N.W., \$32,873.71. The bank does not advise this, however, because if the Society failed to pay its obligations the deficiency would be a lien against the property at 1718 M Street, N.W.

2. To mortgage all three properties in the above amount thereby obtaining a lower rate of interest.

3. To issue bonds in the amount of \$20,000 to be sold to physicians to finance the purchase. If this proposal were acceptable the present mortgages on 1710 and 1720 M Street, N.W., would be allowed to stand.

The Board is inclined to favor the last method. Society members who invested in bonds would be paid interest on their investment and it would be far more satisfactory for its own members to carry the loan than to negotiate it through a banking firm.

Your Board does not recommend that you act upon this matter tonight. It proposes to call a special meeting for this purpose. It hopes that you will give this proposal some thought before it comes before you for action. Those who favor this undertaking believe it will prove a wise investment and that the property at 1720 M Street, N.W., will eventually be put to good use by the Society.

Summary of Membership for 1948: Your Board is very much pleased, and it feels certain that you will be, with the Summary of Membership for 1948. You will note that there has been an increase in all classes of membership during the year, of 134. Of this number, 89 were elected to Active membership. While this increase is not as great as in the years which followed V-J Day, it is healthy growth. Applications are still being received, indicating that the saturation point has apparently not been reached.

At the present moment, the membership stands well above 1,600.

Annual Financial Report for 1948 and Budget for 1949: [Space limitations will not permit the publication of the Report and the Budget. Members who are interested and could not attend the Business Meeting at which they were presented can obtain copies by calling the Society's office.]

Election of the Nominating Committee: The election of this committee was conducted in the manner prescribed by the Society some years ago. With the Board's approval, 21 names of physicians were selected by the President and placed on the ballot and sent to all members. As a result of the balloting, the following members were elected to the Nominating Committee: Drs. Walter Atkinson, Karl C. Corley, Worth B. Daniels, George Nordlinger, R. Lee Spire, J. Ross Veal and R. Lomax Wells. This Committee will report later at this meeting.

Society's Representatives to Hospital Service Agency (formerly Health Security Administration): The Board annually appoints 24 of its members as representatives of the Society to the Hospital Service Agency. Names of those whom it has just appointed, subject to the approval of the Society, are as follows:

Walter Atkinson	Oscar B. Hunter
Frank S. Bacon	Elizabeth Kittredge
Harry S. Bernton	David H. Kushner
Charles J. Bowne	John A. Logan
Albert S. Bright	Henry C. Macatee
Leo T. Brown	W. Cabell Moore
Thomas F. Collins	Margaret M. Nicholson
Henry Lynn Colvin	Leo B. Norris
Karl C. Corley	Luther W. Gray
Maurice H. Friedman	Carlton N. Price
Dean M. Hayes	John A. Reed
Clayton H. Hixson	John U. Schwarzmann

Committee of Fifty-three Physicians: Some weeks ago the Society was notified by Dr. George F. Lull, Secretary and General Manager of the American Medical Association, that a Committee of Fifty-three Physicians was to be organized for the purpose of carrying out the AMA's Educational Program. Each state and territory, including the District of Columbia, was to be represented on the Committee. Dr. Herbert P. Ramsey was designated by your Board as representative from the District. His

title is State Chairman and it will be his duty, and that of a committee to serve with him, to inform the Society's membership about the AMA's plans and the local educational program. This he proposes to do at a meeting which will be scheduled in the near future. Your Board hopes that all members will lend Dr. Ramsey and his committee every assistance possible.

Conclusion: The Annual Business Meeting will be held on May 4, 1949. At that time all the activities of the Society for the current year will be reviewed. Officers for the ensuing year will be elected. Undoubtedly there will be much more to report with respect to current medical problems.

Respectfully submitted,

WILLIAM M. BALLINGER, M.D., *Chairman*
 WILLIAM EARL CLARK, M.D.
 WILLIAM P. HERBST, JR., M.D.
 RAYMOND T. HOLDEN, M.D.
 JOHN MINOR, M.D.
 COURSEN B. CONKLIN, M.D.
 WALTER FREEMAN, M.D.
 THEODORE WIPRUD, *Secretary*

NOMINATIONS

The following nominations for elective offices were presented by the Nominating Committee at the business meeting of the Medical Society on March 2, 1949:

For President-elect

William M. Ballinger

For First Vice President

Sidney C. Cousins

*Samuel M. Dodek

For Second Vice President

Dorothy Jaeger-Lee

For Member of Executive Board

John Minor

For Member of Board of Censors

Richard V. Mattingly

For Delegate to American Medical Association

Hugh H. Hussey

*Coursen B. Conklin

For Alternate Delegate to American Medical Association

Frederick C. Fishback

*Nominated from the floor

Elections to the above offices will be held at the annual business meeting, May 4, 1949.

Washington Physicians of Yesterday



XLVI. WILLIAM CLINE BORDEN, M.D., Sc.D.

Administrative achievement, together with surgical ability, won for Dr. William Cline Borden an honorable place in the ranks of the medical profession of the District of Columbia.

Born May 19, 1858, in Watertown, New York, Dr. Borden received the degree of M.D. from Columbian (now George Washington) University in 1883.

From 1883 to 1909 he served with distinction as a Surgeon in the Medical Department of the United States Army. From 1898 to 1907 he was Chief Surgeon of the Army General Hospital in Washington, and in 1908 of the Division Hospital in Manila. In 1909 he was retired for disability with the rank of Lieutenant Colonel. He was active and influential in planning and bringing about the establishment in 1909 of the Walter Reed General Hospital in Washington. During the period 1898-1907 he was also Professor of Military Surgery in the Army Medical School, and of Surgical Pathology and Military Surgery in Georgetown University. In World War I he returned to active duty in the Army as Surgeon-in-Chief of Walter Reed Hospital, 1917-19.

After his retirement from the Army in 1909 Dr. Borden was appointed Dean and Professor of Surgery of George Washington University Medical School, and Surgeon-in-Chief of the University Hospital. In this capacity he rendered noteworthy service. In 1930 he retired from all active duties on account of severe physical disablement, continuing on Emeritus status and receiving from the University the honorary degree of Doctor of Science in 1931.

(Continued on page 228)

PATTERN FOR ACTION

LAWRENCE DRAKE

Washington

The American middle class, which includes the doctor and this writer, has become the world's great dilemma. If we are to save our way of life, we must above everything else save our middle class, since it is the keystone of our whole system. But to do that we must save it largely from itself. For we middle-class Americans are—there can be no question about it—our own worst enemies.

Our average middle-class citizen spends his working day doing everything he possibly can to keep this country and the world in a state of perpetual change. He is history's great apostle of change, of progress. Since his appearance on the scene the world has not had a restful moment. His day's work done, he gets into his car and dashes home, there to bury himself in a make-believe world, his passionate purpose to shut his eyes to the social consequences of his day's dynamic achievements.

The result is that he seldom faces a social problem before it has cornered him. Then, naturally enough, he hates it. Living by change—change and progress being the substance of his great historic role—he is at the same time hopelessly emotional when it comes to facing the inescapable facts of social change. His habitual flight from the social realities—and it cannot be called anything else—has made him the world's biggest sucker for political nostrums with which to fight Devil Change.

The medical profession is currently engaged in offering the world a dramatic exhibition of this dilemma. In typical middle-class fashion it has found itself cornered by an inescapable social problem. Basically, the problem is simply one of providing medical care on a more adequate social scale. It could have been solved in major part years ago. However, by running away from it, the doctor has almost lost control over it. By the time it cornered him it ceased to be a problem but had become the threat of Federal com-

pulsory health insurance. Cornered at last, he turned immediately, good bourgeois that he is, to the favorite political nostrums—the propaganda noise-makers—to drive away Devil Change.

The results are characteristic. The profession no longer faces the problem of finding a means to ward off the threat of compulsory health insurance. The solution of that enormously complex problem has been made more difficult by the bad public reaction to the nostrums. Further aggravating the bad situation, there is dissension and confusion within the profession itself.

It is not too late. A sensible approach, with some hope of a practical solution, is still possible. However, to clear the ground for such an approach it is necessary that the doctor examine the problem he faces in the light of recent political history.

What put the doctor in this distressing corner was the surprising outcome of the 1948 presidential election. A great deal has been written and said about it. Certain facts about the election have been largely ignored.

One fact is worth every doctor's most careful attention. Truman talked to the people. We may not have liked what he said, or how he said it, but he said what he had to say to the people. Who are the people? They are the workers and their families, the farmers and their families, the businessmen and their families, the professional people and their families. Each is a group by itself. Each has its own special problems. Each has its own anxieties, hopes, aspirations, grievances, and each must stand up to its own problems, and solve them, if it can, on the terms of its own economic position and economic means.

To talk to the people thus means to talk to each group in the economic, social and political terms that have particular and cogent meaning to each. To talk to them collectively, as if they

all had the same problems and the same means for solving them, is to talk to none. Moreover, it is to talk nonsense.

In contrast, and there is no use getting emotional about this fact, Dewey did not talk to the people. Not even at them. He talked at a cartoonist's fiction labeled "the public." It is very convenient for a cartoonist to show labor, the farmer, and management, each so labeled, engaged in a fight, with a little fellow labeled "John Q. Public" getting the worst of it. But while convenient, it is pure tripe.

Let us remove the very specific self-interested groups—the workers, the farmers, the businessmen, and their families. What is left for the abstraction "the public" amounts to nothing that can be considered representative of the American people. Put these groups back into the picture and we have the American people, but in very specific groups, each with its own interests and problems, and each as American as the next.

Truman got some very good advice from somebody, and not a moment too soon. Between 1929 and 1948 the various social groups that make up the American people underwent a process of profound and irreversible crystallization. We are no longer a nation of fluid social groups, without group-consciousness and without strong group organization. Whether we like it or not, we have become a nation of highly crystallized social groups, each looking to itself, each politically sophisticated. The people can no longer be reduced to a wilful abstraction, to be had for the price of a high-sounding speech.

The medical profession has been talking at the same "public" Dewey talked at. Should it continue it will in all probability take the same beating for the same reasons. Dewey was not beaten by Truman. The latter was an unpopular candidate. Truman came in on the tail end of a popular reaction against the Eightieth Congress, which insisted on legislating in the spirit that everything that happened between 1929 and 1948 was of a superficial nature.

The doctors must face the facts. Union membership between 1929 and 1948 increased by some 500 per cent. What is more significant, the majority of the trade-union members have accepted their wage-earning status as the permanent base on which to work out their economic security. They have learned to look to their union card for what they want and what they hope for. This was not the case before 1929.

That trend was paralleled by another one, even more significant from the doctor's viewpoint. Most of our young men and women began to use their college and university educations to prepare themselves for employment rather than independent business careers.

This profound and irreversible development has affected nearly all Americans. Employment is the objective of the vast majority of Americans. And the outlook of our factory workers, office workers, store workers, technicians, and salaried professional employees has been shaped by their need to face life and to plan their lives as wage-earners and salaried employees. Because of this changed outlook, even the wives of these people have learned to organize in order the better to serve their economic and political ends.

The farmer was always a powerful political force. But during this same period he learned to rely more than he ever did before on his own organizations and his own special liaison mechanisms with the Government.

The final new ingredient is the bureaucrat. More than two million strong, our bureaucrats, including some of our best trained people, are the natural allies of the workers. And they have learned how to keep the farmer in line, too.

Neither the war, with all the shifts in population it caused, nor the postwar boom period have materially affected this process of crystallization. We have now entered a new period which is certain to see a new intensification of the process.

The middle class faces a formidable potential combination, with the career bureaucrat as the key figure. All that is necessary to weld these

forces into a cohesive political alliance is the right issue. And that is the source of our dilemma. By refusing to face these facts and to act intelligently in accordance with them, the middle class manages consistently to raise the perfect issues for defeating itself.

From a broad middle-class viewpoint, the very important conservative interests of management and the middle class can be served today only by a party that has learned how to establish two-way, mutually beneficial, everyday relationships with the farmer, the professional classes, and various segments of the workers. Short of such a combination, the party in question will not be able to come to power. The road to power begins, therefore, with hard-headed realism, an adjustment to the social realities, and an end to emotionalism. History cannot be turned back.

What does all this mean to the doctor? Everything. Whether we get socialized medicine or not is unimportant unless we can see our way clear to save the middle class and our economic system. Either the doctor grasps this fact and identifies himself with the whole problem, accepting his share of the responsibility and work, or his attitude is purely parasitical, his shouts of free enterprise and Americanism just sham and humbug, and there is nothing to do but leave him to his own fate.

We are all in the same boat, and there must be a sharing of the total responsibility. We are getting more and more socialism each day not because the people want socialism, but by a process of moral and intellectual default—because the middle class persists in refusing to deal constructively with the social problems that rise from the economics it practices. We can no longer humor the excuse of the specialist that he is a specialist in his own field and not a sociologist. He had better become one. Salvation by default has not worked and will not work.

To overcome the bad public reaction to what it has already done, and to assume the initiative in the battle, the medical profession should issue a strong official statement at once based on the following premises:

1. That it recognizes without any reservations, as all doctors have recognized since the beginning of modern medicine, that every man, woman and child has a right to good medical care when needed.

2. That the profession's major concern is to work out methods for providing the medical care so that the voluntary structure of our medical services will not be undermined and destroyed.

3. That with that end in view, and determined to work out the problem with the fullest participation of the American people, it has appointed special committees to establish permanent working relationships with the trade unions, the trade associations, the farmers' organizations and women's organizations. Through these organizations it hopes to do the job in a manner satisfactory to the American people but on a voluntary basis.

4. That the profession's purpose in undertaking this colossal task is to preserve the high quality of American medicine while making it available to many more millions of Americans.

5. That in view of its decision and its undertaking, the profession feels justified in requesting that consideration of the compulsory health insurance measure be postponed, so that its effort to do the job on a voluntary basis, with the fullest co-operation of the American people, will not be impeded by the threat of Federal intervention.

The medical profession need only announce such a plan, and show by action that it means what it says, to change the drift of public opinion. It will give its friends in Congress a strong and an honest basis for opposing the consideration of the Government-sponsored measure.

Large numbers of doctors are thinking in this manner. To quote from the principles adopted recently by the Committee on Medical Economics and Public Relations of the Massachusetts Medical Society: "The success of any plan for medical care is dependent on the mutual coöperation of the public, those rendering professional services, and the administrative agencies." Well stated, but for one ambiguity—"the public."

Substitute for that ambiguous term the proper concept of the make-up of our society, and direct the thought toward using the organizations that are politically and economically expressive of our crystallized social groups, and the plan for the necessary action becomes clear. More, the mechanics become in large part available and the "administrative agency" has what amounts to a clear directive.

Some state medical societies have already done just that, and have worked out temporary voluntary arrangements with the trade unions. However, such isolated and sporadic attempts, lacking the decision and strength that would come if they represented a fully mobilized national effort, have the appearance of being only stop-gaps and will be considered only stop-gaps by the trade unions. The whole medical profession must take a single-minded and determined stand, if the people are to be convinced.

The workers want the assurance of good medical care for themselves and their families when they need it. There is nothing un-American about that. Being wage-earners, they want it, naturally enough, on terms they can manage. There is nothing un-American about that either. To raise false issues, which can only unite the worker and the bureaucrat, is to invite certain defeat.

The best place to give the worker what he wants, and to do it on a voluntary basis, satisfying everybody all around, is the trade union. The worker is a key figure in the picture because he knows what it means to be on the borderline of indigence. He has strong feelings on the subject. And he has a powerful way to express his feelings politically.

The trade association is another place where the problem can be tackled. It should be relatively easy to develop a Nation-wide campaign to interest industrialists and business men in setting up voluntary medical care arrangements for their employees. Management does not have to be told that the compulsory health insurance measure is against its interests. The trade

associations might be grateful to exchange their present negative role in the battle for a more positive and a more constructive role. Of course, the trade associations, operating as they do, cannot act unless the medical profession comes to them with a plan and a scheme for the whole campaign.

The farmers' organizations are the third necessary place. The women's organizations should not be neglected.

Capitalistic economy is based on a straight buyer-seller relationship. Our purpose is to maintain this relationship. Credit extension and insurance are both sound capitalistic devices. The whole point is to utilize these devices, and any other that may be necessary, to maintain the buyer-seller relationship.

This brings us to the key problem—the medical society. Each individual American, and the Nation as a whole, owes the medical societies of this country a profound debt of gratitude for the superb job they have done in advancing the means for and the cause of good medicine. It just happens, however, that the problem of providing medical care to all the people has become critical, and it is here, in meeting this problem, that the medical societies show the shortcomings that can result from long operations in the service of a single-minded purpose.

The shortcomings of the medical society are those of the average scientific society. It is a curious weakness of the average scientific society that it reflects the attitude of men who would make their preoccupation with their specialty the sole measure of their social outlook.

Such an attitude is obviously untenable in a profession that has become the object of one of the great social and political controversies of the day, with the implications of the controversy casting their shadows over our whole economy. It would seem imperative right now to expand the services of the medical society to cover the social problems related to the practice of medicine.

SUMMARY

1. The practice of medicine on a voluntary basis is confronted by the pressing need for a large-scale social adjustment. What the doctor faces is the necessity to provide a radically increased measure of medical care to each social group, but on the economic basis that is predetermined in each case by the economic means of the group involved.

2. Failure on the part of all involved to gauge the urgency of this problem has resulted in an attempt to solve the problem in a manner that would set us on the road to socialized medicine.

3. Seriously outflanked by this sudden political development, leaders of the medical profession have resorted to a type of political counter-attack that is not in correspondence with the realities of the situation. By inviting a head-on collision in Congress, instead of retreating to stronger ground, the medical profession is weakening and dividing its forces.

4. There are those in the profession who are even counting on the surprising strength of the anti-Truman forces in Congress. They are forgetting the last election, which showed clearly that the people do a lot of thinking for themselves. One of the probable results of a do-nothing Eighty-first Congress may be a far more liberal Eighty-second Congress.

5. Realism demands that the medical profession stand up to the true problem it faces, which is one of social adjustment. To take measure of this problem it must stop befuddling itself with emotional expedients.

6. The strong ground to which the medical profession can and must retreat is the ground on which it can still attempt to deal with the problem for what it is—a problem in adjustment to a new set of conditions. On this ground, the medical profession should immediately seek to establish working arrangements with the trade unions, the trade associations, and the farmers' organizations in order to get down to a face-to-face relationship with all these groups. That is the positive way to take the issue out of politics,

and the only effective way in which the problem can be solved without serious Government intervention.

7. By showing an immediate inclination to work with the people, the medical profession can still overcome the bad public reaction to its tactics.

8. To do this job, the medical societies will have to overhaul their traditional social attitude.

That is the indicated pattern for action.

726 Jackson Place, N.W.

MEMBERSHIP

The following applicants for membership were duly elected to membership at the meeting of the Executive Board, February 28, 1949:

Active Members

Frank S. Ashburn, 915 19th Street, N.W.
 George J. Carrell, Sibley Memorial Hospital
 Robert D. Doty, 6615 Georgia Avenue, N.W.
 Melvin T. Johnson, 4300 Third Street, S.E.
 Althea Kessler, 5060 MacArthur Boulevard, N.W.
 Lois I. Platt, 2026 R Street, N.W.
 George N. Raines, Georgetown University Medical Center
 Joseph M. Rom, 901 20th Street, N.W.
 Stephen S. Sgambati, 18 Ninth Street, N.W.
 Earl B. Thompson, 1328 Eye Street, N.W.

Associate Members

Lt. Colonel Harold F. Funsch, M.C., Bolling Air Force Base
 C. Louis Mendel, 4506 College Avenue, College Park, Md.

Recent changes in membership status:

Active to Associate

Charles F. Stiegler

*Resigned**Active*

Cleo A. Brall
 Jacob S. Light
 Matthew Mendelsohn

Associate

Sanford M. Rosenthal
 Jacob E. Shillinger
 E. Richard Weinerman

FACILITIES FOR THE HARD OF HEARING AND THE DEAF IN WASHINGTON, D. C.

SPECIAL FACILITIES FOR THE HARD OF HEARING

I. ORGANIZATIONS

American Hearing Society

Address and telephone: 817 14th Street, N.W.,
National 2550

Office hours: 9 to 5 daily, except Saturday

Executive Vice President: Harry P. Wareham

Services offered: Information, field work, vocational
advice, publicity material, and exhibits

Publication: *Hearing News*, \$2.50 per year

Washington Hearing Society (Chapter 16 of American Hearing Society)

Address and telephone: 2431 14th Street, N.W.,
Columbia 7335

Office hours: 9 to 5 daily, except Saturday

Executive Director: Miss Rose V. Feilbach

Services offered:

- a. Lip reading for adults
- b. Lip reading and auditory training for teenagers
- c. Hearing aid consultation service
- d. Speech and voice improvement
- e. Information service
- f. Young people's group activities, business and social
- g. Parent-training class
- h. Parents' study group
- i. Audiometer tests

Publication: *The Announcer*, free to members;
others, \$1.00 per year

II. PUBLIC SCHOOLS

John Quincy Adams School

Address and telephone: 19th and California Streets,
N.W., National 6000

Principal: Mrs. Florence Cornell

Services offered: Special room with specially trained
teachers for white children of elementary school
age only with severe hearing losses.

Eligibility is determined by the District Health
Department.

Douglass-Simmons School

Address and telephone: 1st and Pierce Streets,
N.W., National 6000

Principal: Mrs. A. B. Bishop

Services offered: Same as above, but for colored
children.

III. PRIVATE EDUCATION

Hearing Rehabilitation Center

Address and telephone: 2025 Eye Street, N.W.,
Republic 1400, Ext. 407

Office hours: 9 to 5 daily

Director: Mrs. Edna K. Monsees

Services offered: Lip reading, auditory training,
and hearing aid consultations for children and
adults.

Teachers of Lip Reading (with address and tele- phone)

Ambrose, Miss Mary Jane, 4610 15th Street, N.W.,
Georgia 9235

Azpell, Mrs. George, 412 Surrey Street, Chevy
Chase, Md., Wisconsin 2994

Babbitt, Mrs. Elizabeth Clarke, 1819 Wyoming
Avenue, N.W., Michigan 7207

Brown, Miss Myra, 3720 Macomb Street, N.W.,
Ordway 3512

Downes, Miss Francis H., 2311 Connecticut Avenue,
N.W., North 1874

Fisher, Miss Mae T., Carrol Springs Inn, Silver
Spring, Md., Shepherd 9740

Nitchie, Mrs. Elizabeth Helm, 2601 16th Street,
N.W., Columbia 1000

Rae, Miss M. Evaline, 2601 16th Street, N.W.,
Columbia 1000

Woolley, Miss Florence W., 2126 Connecticut
Avenue, N.W., Hobart 8042

IV. THEATERS EQUIPPED WITH HEARING AIDS

Kaywood, Eastern Avenue, between Rhode Island
and Michigan Avenues

Newton, 12th and Newton Streets, N.E.

Takoma, 4th and Butternut Streets, N.W.

SPECIAL FACILITIES FOR THE DEAF

I. ORGANIZATION

Volta Bureau (Headquarters of the Volta Speech Association for the Deaf)

Address and telephone: 1537 35th Street, N.W.,
Michigan 0014

Office hours: 9 to 5 daily, except Saturday

Executive Secretary: Miss Josephine Timberlake

Services offered: General information

Publication: *The Volta Review*, \$2.50 per year

II. LITERARY, SOCIAL AND FRATERNAL SOCIETIES

National Fraternal Society of the Deaf, Division 46.

Place and date of meeting: Masonic Temple, 8th and F Streets, N.E., first Saturday of month

President: Alva Cuppy, 1c Northway Road, Greenbelt, Md.

Information: Strictly fraternal. Conducts picnics, outings, and benefit parties.

National Literary Society (for the deaf)

Place and date of meeting: Masonic Temple, 8th and F Streets, N.E., third Wednesday of month

President: Henry Holter, 4317 19th Place, N.E.

Information: Conducts typical literary society programs. Perhaps largest local group of deaf audience of both sexes.

Gallaudet College Alumni Association, D. C. Chapter

Place and date of meeting: Homes or College Chapel, usually second Wednesday of month

President: Emil Rath, 3912 Ames Street, N.E.

Kendall School Alumni Association

President: Wallace Edington, 1709 Lang Place, N.E.

The District of Columbia Club of the Deaf, Inc.

Place and date of meetings: 713 D Street, N.W., third Monday of month

Note: Visitors welcome on Friday, Saturday and Sunday evenings

III. RELIGIOUS GROUPS

Sunday Evening Concerts at Gallaudet College

Place and time: Chapel Hall, 7 to 7:30 p.m.

Calvary Baptist Church Mission

Address: 8th and H Streets, N.W.

In charge: Professor H. D. Drake, Gallaudet College

Information: Meets Sunday evenings, except during July and August. Sunbeam Society, led by ladies, meets fourth Tuesday of month.

Catholic Church Mission

Place: Holy Name Church, 11th and K Streets, N.E.

Information: Services held regularly. A number of young priests from the Theological College of Catholic University assist the regular priest.

Christian Deaf Fellowship

Place: Full Gospel Tabernacle, 915 Massachusetts Avenue, N.W.

Teacher: Miss Coila Soules

Information: Services held regularly. The ministers are quite proficient in the use of the language of signs.

Episcopal Church Mission

Address: 3rd and A Streets, S.E.

In charge: The Reverend Otto B. Berg, 3226 North 16th Street, Philadelphia 40, Pa.

Information: A number of visiting deaf Episcopalian ministers hold regular services here and give talks at Gallaudet College.

Lutheran Church Mission

Address: 4th and E Streets, N.W.

Information: A minister of one of the Lutheran churches in the city, who is quite skilful in the use of the language of signs, holds regular services.

Silent Mission (for Negro deaf)

Place and time: Shiloh Baptist Church, 9th and P Streets, N.W., Sundays at 8 p.m.

In charge: The Reverend John Cooper, Jr.

Washington Jewish Society for the Deaf

Secretary: Harold Steinman, 8002 Blair Mill Drive, Silver Spring, Md.

Information: Monthly meetings during winter season.

IV. ATHLETIC ORGANIZATIONS

D. C. Silents (basketball team of the deaf)

Information: Sponsored by the District of Columbia Club of the Deaf, Inc.

Deaf Bowling League

Place and day: Lucky Strike Alleys on Thursdays, September to April

President: Milton Friedman

V. NEWSPAPER

The Cavalier

Address: P. O. Box 2710, Washington 13, D. C.

Information: A monthly independent newspaper dedicated to the deaf. Published about the first of each month. All communications and advertisements should be sent before the 14th of each month.

VI. RESIDENTIAL SCHOOLS

Kendall School

Address and telephone: 8th and Florida Avenue, N.E., Lincoln 2450

Office hours: 8 to 4:30

Principal: Wm. J. McClure; Executive Officer: Dr. Leonard M. Elstad

Information: This School is part of the Columbia Institution for the Deaf. The District of Columbia pays tuition of District deaf white children. Pupils are admitted by examination from the District Health Department and by application

from the District Public Schools. Pupils from outside the District of Columbia may be admitted upon application on a tuition basis. The present enrollment is 85.

Services offered: Preschool, elementary and secondary education.

Maryland School for the Blind

Address: Overlea, Md.

Superintendent: Dr. Francis M. Andrews

Information: For colored deaf children from the District of Columbia with admission on same basis as Kendall School. Enrollment is dependent on funds available from the District budget.

Services offered: Elementary and secondary education.

Gallaudet College

Address and telephone: 8th and Florida Avenue, N.E., Lincoln 2450

Superintendent: Dr. Leonard M. Elstad

Information: This College is part of the Columbia Institution for the Deaf. Students are admitted by application and examination. Those from the states and territories who are unable to pay tuition are admitted and tuition paid by Federal appropriation.

Services offered: Advanced education for the deaf.

VII. PRIVATE SCHOOL

Reinhardt School for Deaf Children

Address and telephone: The Spruces, Kensington, Md., Pleasant 0236

Principal: Miss Anna B. Peck

Information: An oral school for deaf white children. Tuition rates for residential and day pupils.

Services offered: Nursery, primary and intermediate education.

SPECIAL SERVICES FOR HARD OF HEARING AND DEAF

I. FEDERAL

U. S. Children's Bureau, Federal Security Agency

Address and telephone: 14th and Constitution Avenue, N.W., Executive 6300, Ext. 3291

Chief: Katharine F. Lenroot; Chief of Exceptional Children: Elise H. Martens

Information: Investigates and reports on all matters pertaining to the welfare of children. Furnishes grants for maternal and child health services.

Federal Office of Vocational Rehabilitation

Address and telephone: Social Security Building, Room 2232, 3rd and Independence Avenue, S.W., Executive 6500, Ext. 739

Specialist for Deaf and Hard of Hearing: Boyce R. Williams

Information: Services disabled persons between ages of 16 and 65 years who find their handicap an obstacle in earning a living.

Walter Reed General Hospital (Aural Rehabilitation Center for service men and women)

Address: Forest Glen Annex, Forest Glen, Md.

Director: Dr. Aram Glorig

Services offered: Lip reading classes, speech classes, audiometric testing, auditory training classes, hearing aid consultation service, and psychiatric consultations.

National 6000, Ext. 2162

Chief, School Medical Inspection Service: Dr. Richard L. DeSaussure

Conservation of Hearing Specialist: Miss Elizabeth Van Luven

Services offered: Advisory capacity in the conservation of hearing program. Group and individual audiometer tests and approved educational follow-up of children who have a hearing loss. Certifies children for special classes.

District of Columbia Rehabilitation Service

Address and telephone: Social Security Building, Room 2449, 3rd and Independence Avenue, S.W., Executive 6300, Ext. 2140

Office hours: 8:30 to 5

Chief: David Amato

Services offered: Employment possibilities for persons between the ages of 16 and 65 years who are employable but who find their hearing loss an obstacle in earning a living. This service is free to District residents. Retrains those with previous work experience and also makes job adjustments for those who need it. Furnishes hearing aids to those who can benefit thereby. Pays for auditory training and speech classes when such are necessary to rehabilitate the individual.

II. MUNICIPAL

Health Department of the District of Columbia

Address and telephone: 300 Indiana Avenue, N.W.,

III. MEDICAL

Ear, Nose and Throat Clinics at the following hospitals:

* Children's
 * Episcopal Eye, Ear and Throat
 Freedmen's
 Gallinger Municipal

* These hospitals have Hard of Hearing Clinics. At Children's the Clinic meets every first and third Monday at 12 noon. Patients must come to E.N.&T. Clinic first where appointments are given.

At Episcopal the Clinic meets every Tuesday morning from 9 to 12:30. Patients are seen by appointment. Miss Catherine Tisdale is in charge.

Garfield Memorial
 Georgetown University
 George Washington University
 Providence

Information: All patients for clinics must make application for a permit from the Hospital Service Agency, 1823 L Street, N.W. Small fee is charged, depending on ability to pay.

IV. TEACHER-TRAINING

Gallaudet College

Superintendent: Dr. Leonard Elstad

Catholic University

Director: The Reverend Fr. Francis T. Williams

GOVERNMENT-TRAINED PHYSICIANS URGED TO VOLUNTEER FOR ARMED FORCES

A national campaign seeking physician and dentist volunteers for the Armed Forces began February 15.

The National Military Establishment estimates that approximately 18,000 young men received, in whole or in part, their professional educations at Government expense under the ASTP and V-12 programs. Of these, some 10,000 have served in the Armed Forces. The 8,000 of this group, and around 7,000 more who were deferred to continue their professional educations at their own expense, did not see combat. They will now be asked to volunteer for a period of one or two years of service.

The drive was proposed to Secretary Forrestal by his recently appointed Armed Forces Medical Advisory Committee as a prerequisite to any resort to compulsory induction of such personnel. This committee is composed of eleven civilian leaders of the medical and allied professions and the Surgeons General of the Army and Navy and The Air Surgeon. It is headed by Charles Proctor Cooper, President of the Board of Trustees of Presbyterian Hospital in New York City, who is Deputy to Secretary Forrestal for Medical and Allied Professional Matters.

When recommending the drive for volunteers, the Advisory Committee stated that it will make a careful and continuing review of the work load of the medical and dental services and of the utilization of professional personnel to determine where economies can be made.

The campaign committee is headed by Major General Raymond W. Bliss, Surgeon General of the

Army, who will act as Chairman. The other members are Rear Admiral Clifford A. Swanson, Surgeon General of the Navy, and Major General Malcolm C. Grow, The Air Surgeon. It will report to Chairman Cooper of the Medical Advisory Committee in his capacity as Deputy to Secretary Forrestal.

The campaign committee, Secretary Forrestal said, will serve as liaison between the National Military Establishment and the American Medical Association, the American Dental Association, and other interested professional and nonprofessional groups.

The program proposed by the committee would be a coöperative effort of the medical and dental professions and the medical services of the Armed Forces. The committee pointed out that estimated shortages in the Armed Forces by the end of July, 1949 will be about 1,600 physicians and about 1,160 dentists. By next December this shortage will total approximately 2,200 physicians and 1,400 dentists.

Announcing his approval of the recommendation for the campaign, Secretary Forrestal said it is designed primarily to obtain the required professional personnel from two groups of young physicians and dentists whom the Medical Advisory Committee feel owe an obligation to volunteer. They are:

1. The young men who received the benefits of the wartime ASTP (Army Student Training Program) and the similar Navy V-12 program, but subsequently performed little or no service, and

(Continued on page 228)

News and Personals

The 98th Annual Session of the American Medical Association will be held in Atlantic City, N. J., June 6-10. Representing the District Medical Society officially at the meetings will be Drs. C. B. Conklin and Herbert P. Ramsey, Delegates, and Messrs. Theodore Wiprud and J. Richard Connelly, Secretary and Assistant Secretary, respectively.

The Seventh International Congress on Rheumatic Diseases, the first to be held in the United States, will convene at the Waldorf Astoria in New York City, May 30 to June 3. The host is the American Rheumatism Association in coöperation with the New York Rheumatism Association. The Congress has the official sanction of the United States Department of State, which will assist in the issuance of official invitations.

Papers will be presented before the plenary sessions by distinguished speakers from the United States and foreign countries. Speakers from overseas will be Lord Horder of London, Jacques Forestier of Aix-les-Bains, France, Eric Jonsson of Stockholm, Imre Barsi-Basch of Budapest, Professor S. deSeze of Paris, Svend Clemmesen of Copenhagen, Dr. William Tegner of London, Henrik Seyfarth of Oslo, P. Barcelo of Barcelona, Veikko Laine of Heinolan, Finland, and Ferando H. Ramos of Montevideo.

The official languages of the Congress will be English, French, and Spanish, but instantaneous translations of the scientific papers given at the plenary sessions will be made by means of the I.B.M. wireless system. The meeting is open; the registration fee is \$10.00.

The Society for Vascular Surgery will hold its annual meeting at the Dennis Hotel in Atlantic City, N. J., June 5, preceding the AMA Convention. All physicians are invited to attend.

The Metropolitan Washington Tuberculosis Conference will be held Thursday, April 28, at the Federal Security Building (north). At the Medical

CALENDAR OF MEETINGS

- March 1 Committee on Public Policy
- March 2 Business Meeting of Society
- March 3 Committee on Medical Ethics and
Department
Section on Neurology and Psychiatry
Executive Board of Woman's Auxiliary
- March 4 Committee on Emergency Medical Care
- March 8 Registered X-ray Technicians of
Washington
- March 9 Scientific Meeting of Society
Committee on Public Relations
Woman's Auxiliary
- March 11 Grievance Committee
Diabetes Association of D. C.
District of Columbia Chapter of Ar-
thritis and Rheumatism Foundation
- March 12 Washington Psychoanalytic Society
- March 14 Washington Orthopedic Club
- March 16 Committee on Public Relations
- March 17 Health and Hospital Section, United
Community Services
- March 18 Committee on Public Policy
- March 21 Special Society Meeting on AMA'S
Educational Program
Committee on Arrangements, Annual
Scientific Assembly
- March 22 Section on General Practice
- March 23 Scientific Meeting of Society
Section on Dermatology and Syphil-
ology
- March 25 Committee on Cancer Control
- March 29 Subcommittee on Mental Health
- March 30 Board of Trustees, Medical Service
- March 31 Conference of Physicians' Secretaries

Section meeting at 10 a.m., a group of chest X-rays with diagnostic or therapeutic problems will be presented, followed by a Panel Discussion on Clinical Application of Recent Advances in Pulmonary Physiology. Members of the panel will be Dr. Theodore Beatty, of George Washington University

Hospital, Dr. Stephen Kylar, of Glenn Dale Sanatorium, and Dr. K. Albert Harden, of Freedmen's Hospital. Moderator of the panel will be Dr. Moe Weiss, of Glenn Dale Sanatorium.

Dr. Isidore D. Borrowitz, Medical Superintendent of the Municipal Sanatorium of the City of New York, Otisville, New York, will be the principal speaker at the afternoon session, which begins at 2 p.m. His subject will be "The Psychology of the Tuberculosis Patient."

All interested physicians are invited to attend this Conference.

The Potomac Chapter of the American College of Chest Physicians is providing the afternoon program of the Annual Meeting at the Medical and Surgical Faculty of Maryland, to be held at the Hotel Sheraton-Belvedere in Baltimore, April 27.

The program will consist of a Panel Discussion on Neoplasm of the Chest, with Dr. W. LeRoy Dunn as Moderator. Dr. Dunn is in charge of the Chest Clinic at Central Dispensary and Emergency Hospital. Panel members will present the following papers: "Tumors of the Mediastinum," Dr. Edward M. Kent, Professor of Thoracic Surgery, University of Pittsburgh School of Medicine; "Intrapulmonary Neoplasm," Dr. Edgar W. Davis, Professor of Thoracic Surgery, Georgetown University School of Medicine; "Tumors of the Thoracic Cage," Dr. John W. Strieder, Surgeon-in-chief of Thoracic Surgery, Boston City Hospital and Massachusetts Memorial Hospitals, and Associate Professor of Thoracic Surgery, Boston University School of Medicine.

The Montgomery County Medical Society will hold its final meeting of the year, May 24, at the Chestnut Lodge, Rockville, Md. Following dinner at 7:15 p.m., Dr. Dexter Bullard, Director of the Sanitarium, and his staff will present the topic for the evening, "Psychiatric Treatment Today." Discussion will be led by Dr. Edward J. Stieglitz and Dr. David M. Rioch.

The Board of Examiners of the American College of Chest Physicians announces that the next oral and written examinations for fellowship will be held in Atlantic City, June 2, 1949. Candidates for

fellowship who would like to take the examinations should contact the Executive Secretary of the College at 500 North Dearborn Street, Chicago 10, Illinois.

The South Atlantic Association of Obstetricians and Gynecologists announces that the closing date for submitting manuscripts in competition for 'The Foundation Prize' of \$100 will be June 1. Authors of papers on obstetrical or gynecological subjects desiring to compete for the award may obtain full information from Dr. E. D. Colvin, Secretary-Treasurer, 1259 Clifton Road, N.E., Atlanta, Ga.

The Boy Scout Camp Theodore Roosevelt on Chesapeake Bay is in need of a camp physician for the season, June 20 to August 31. The position is open to a physician, an intern or resident, or at least a third-year medical student. In addition to private quarters and meals, a salary will be paid.

Services for the entire season or a part of it are acceptable. Telephone Don Simpson at National 7963 or write him in care of Boy Scouts of America, 400 6th Street, N.W.

Members of the American Association for the Study of Neoplastic Diseases convened at Garfield Memorial Hospital, April 7, 8 and 9. Most of the sessions were held in the Kellogg Building.

The session topics and chairmen were as follows:

- April 7—Lesions of the Salivary Glands; Dr. Theodore Winship, *Chairman*
Lesions of the Lymphoid and Reticulo-endothelial Systems; Dr. Lewis C. Pusch, York, Pa., *Chairman*
Lesions of Bones; Dr. Ralph M. Caulk, *Chairman*
- April 8—Lesions of the Gastrointestinal Tract; Dr. J. H. Norwood, Baltimore, *Chairman*
Endocrines and Neoplasia; Dr. Roy Hertz, *Chairman*
(this session to be held at the National Cancer Institute)
Lesions of the Female Genitalia; Dr. J. Keith Cromer, *Chairman*
- April 9—Miscellaneous Cases; Dr. George A. Stewart, Baltimore, *Chairman*

Dr. Eugene R. Whitmore is Secretary of the Association.

The Sectional Meeting of the American College of Surgeons, for the Middle and Southern Atlantic states, was held at the Hotel Statler, March 15 and

16. Dr. Daniel L. Borden, Chairman of the Committee on Arrangements for the meeting, presided at the opening session, March 15. Dr. Harry H. Kerr presided at the morning session, March 16.

Members of the District Medical Society contributed a number of scientific papers: "Diagnosis of Benign Lesions of the Breast," Dr. Murray M. Copeland; "Tendon Injuries," Dr. William J. Tobin; "Care and Education of Amputees," Dr. Leonard T. Peterson; "Uses and Abuses of Intravenous Therapy and Blood Substitutes," Dr. Charles S. White; "Continuous Spinal and Continuous Epidural Anesthesia," Dr. Edward B. Tuohy.

J. G. Capossela, Administrator of Emergency Hospital, opened the Hospital Conference, March 15, which was held concurrently with the Medical Section meetings. Among local participants in the program were Leo G. Schmelzer, Superintendent of George Washington University Hospital, and Drs. Tuohy, Oscar B. Hunter, Willy E. Baensch, John Minor, Charles S. White, Jerome F. Crowley, Frank Horvath, and Charles S. Wise.

The first evening was devoted to a Forum on Medical and Hospital Public Relations, at which Dr. Edwin L. Crosby, Director of Johns Hopkins Hospital, presided. Participating were Watson Davis, of *Science Service*; Thomas R. Henry, of the *Washington Evening Star*; Philip W. Dodd, of the *Chicago Tribune*; Theodore F. Koop, of the Columbia Broadcasting System, Station WTOP; and Dr. James A. Gannon, for the Medical Society of the District of Columbia.

The George Washington University Medical Society held its 23rd Annual Banquet and Alumni Reunion, March 5, at the Mayflower Hotel. The evening was designated Southern Medical Night in honor of Dr. Oscar B. Hunter, Secretary and Past President of the Society, who is this year's President of the Southern Medical Association. Dr. James I. Boyd, President of the Society, presided.

Dr. Hunter extended greetings from the Southern Medical Association, and introduced a number of distinguished Southern guests who were present for the occasion. Among them were Dr. Hamilton W. McKay, President-elect, Mr. C. P. Loran, Secretary-Manager, and Dr. F. A. Holden, Baltimore, member of the Executive Committee, officials of

SMA, and Dr. W. L. Pressly, of Due West, South Carolina, who was designated the outstanding general practitioner of the year at the last meeting of the AMA. Dr. McKay, Dr. Pressly, Mr. Loran and Dr. Holden responded to their introductions by brief greetings. Dr. Hunter also introduced two local officials of SMA, Dr. Arnold McNitt, Chairman of the Council and Executive Committee, and Dr. Helen Gladys Kain, Councilor-elect from the District of Columbia.

The speaker of the evening was The Honorable Estes Kefauver, United States Senator from Tennessee, who outlined some of the problems facing the South in education, industry, and medicine.

Greetings from George Washington University and Georgetown University Schools of Medicine were extended by Dr. Walter A. Bloedorn, Dean of the former, and Dr. Andrew A. Marchetti, Professor of Obstetrics and Gynecology, speaking for the Dean of Georgetown. Rear Admiral Clifford A. Swanson spoke briefly in behalf of the Armed Forces of the United States.

The highlight of the evening was the presentation of this year's Award of Merit to Dr. Hunter by Dr. Roger M. Choisser, Chairman of the Committee on Awards. Dr. Hunter was cited for his scientific attainments and for his service to the community. The award consisted of a check for \$100 and an engraved scroll.

Dr. Robert H. Harmon led in singing. Dr. Herbert S. Gates, President-elect of the Society, was Chairman of the Banquet Committee.

At the mid-year clinic of the American Association of Obstetricians and Gynecologists, held in Washington, March 18 and 19, the feasibility of using television in the teaching of medicine was demonstrated at George Washington University Hospital. WMAL-TV televised three operations, March 18, on a program not viewed by the general television audience. Dr. John Parks, Professor of Obstetrics and Gynecology of George Washington University School of Medicine, performed the operations, assisted by Dr. Henry L. Darnier, Clinical Professor of Obstetrics and Gynecology, and Dr. Barton W. Richwine, Associate in Obstetrics and Gynecology. The operations performed were a cesarean section, the Manchester-Fothergill, and an ovariectomy.

The 1949 Kober Lecture was given by **Dr. Homer F. Swift**, Emeritus member of The Rockefeller Institute, in Gaston Hall, Georgetown University, March 28. His lecture was entitled, "Etiology of Rheumatic Fever." In accordance with the provisions of the Founder, the Association of American Physicians awarded the 1949 honor.

Dr. Swift graduated from the New York College of Medicine in 1906. During World War I he served with the American Expeditionary Forces. He was an associate member of The Rockefeller Institute from 1919 to 1922 and a member and physician to The Rockefeller Institute Hospital from 1922 to 1946. He is now Emeritus member of the Institute.

The early work done by Dr. Swift was with the Wassermann reaction and study of syphilis of the central nervous system; with Dr. Arthur Ellis he devised the so-called Swift-Ellis treatment for syphilis of the central nervous system. He has also worked with rheumatic fever and streptococcal infections since 1914. During World War II he was a Consultant to the Secretary of War.

Dr. Swift has contributed numerous articles relating to his work to medical journals. He is also the author of the chapter on rheumatic fever in the Oxford System of Medicine, Nelson's Loose-leaf Medicine, and Cecil's "Textbook of Medicine," and of the chapter on the streptococci in Dubos' "Bacterial and Mycotic Infections of Man."

The Washington Urological Association held its annual banquet at the Mayflower Hotel, March 3. Presiding was Dr. H. DeG. Wolff, Jr., of Alexandria. The guest speaker was Dr. Elmer Hess, of the Pennsylvania State Society, who spoke on "Psychosomatic Aspects of Urology." Among the guests were Dr. Joseph S. Lawrence, of the Washington Office of the AMA, and Theodore Wiprud, Secretary, and J. Richard Connelly, Assistant Secretary, of the District Medical Society.

The District Dental Society's Postgraduate Clinic, held at the Shoreham Hotel, March 13-16, was well attended.

Dr. Daniel F. Lynch presided at the Cancer Symposium, March 13. "Cancer of the Mouth" was presented by Dr. Hayes Martin, of the Memorial Hospital, New York. His paper was discussed by Dr. Sterling V. Mead, Lt. Colonel Joseph Bernier,

and Drs. Ralph M. Caulk, Arthur Dick and Tomas Cajigas. At the same meeting Dr. Harry H. Kerr spoke on "The Work of the American Cancer Society."

On March 15, Dr. Karl H. Wood was moderator for a Panel Discussion on Oral Surgery. Dr. Leigh C. Fairbank was the first panel speaker.

Drs. Lynch, Mead, Wood and Fairbank, members of the Dental Society, are Associate members of the District Medical Society.

The Washington Medical and Surgical Society met at Hotel 2400, March 28. A case report on "Atypical Pneumonia" was given by Dr. Charles T. Carroll. The essayist of the evening was Dr. William C. Meloy, who gave a paper on "Care of the Burned Hand and Its Complications."

Election of officers for 1949-50 will be held, April 25, and the annual banquet, May 12. The following officers have served during the past year:

Dr. Joseph F. Belair, *President*; Dr. Jerry K. Cromer, *Vice President*; Dr. Clyde P. Reeves, *Secretary*; Dr. Frank E. Gibson, Sr., *Permanent Treasurer*.

Membership in this society is limited to 50. The membership now stands at 39.

The Section on Otolaryngology has invited out-of-town speakers to address its members at the last three meetings. On March 15, at a meeting held at the Army-Navy Club, the speaker was Dr. Fletcher D. Woodward, Professor of Otolaryngology of the University of Virginia, who spoke on "Chronic Ear Suppurations."

On January 18 the Section was addressed by Dr. Benjamin Shuster, Professor of Neuro-otology, of the Graduate School of Medicine, University of Pennsylvania; his subject, "The Functions and Diseases of the Labyrinth." At the November meeting Dr. Louis Clerf, Chief of Bronchoesophagology and Laryngology at Jefferson University Hospital, discussed "Diseases of the Larynx as Shown by Kodachrome Motion Pictures."

The present officers of the Section are:

Dr. James P. Lyons, *Chairman*; Dr. Don S. Kowlton, *Vice Chairman*; Dr. Victor R. Alfaro, *Secretary*; and Dr. Irvin Feldman, *Treasurer*.

The Washington Chapter of the Pan American Medical Association held a meeting at the Mayflower Hotel in the Pan American Room, February 24. Comdr. J. B. Amberson of the U. S. Naval Hospital and Medical School spoke on "An African Safari." About 75 attended and enjoyed the buffet supper which followed the program.

The George Washington University Medical Society held its fifth meeting, March 19. Dr. Maurice H. Friedman, Instructor in Medicine, Georgetown University School of Medicine, spoke on "The Ewing Report and the Drive for Compulsory National Health Insurance."

The Washington Orthopedic Club met, February 14, at Walter Reed Hospital, where they were guests of the Orthopedic Department. The program consisted of a discussion of the recent advances in celloplastic amputations of the upper extremity, and intramedullary nailing of fractures. A buffet supper followed the program.

The Washington and Baltimore Ophthalmological Societies held a joint dinner meeting at the Stafford Hotel in Baltimore, March 24. Dr. Alan C. Woods gave a report on his recent trip to England where he represented American ophthalmologists.

The Diabetes Association of the District of Columbia elected new officers, March 11. They are:

Dr. Maurice Protas, *President*; Dr. Maurice A. Selinger, *First Vice President*; Dr. Theodore A. Koppanyi, *Second Vice President*; Dr. K. Hammond Mish, *Secretary-Treasurer*.

The Army's first radioactive isotope laboratory was opened officially on March 4 at the Army Medical Center by Major General Raymond W. Bliss, Surgeon General of the Army.

In addition to research, the laboratory will be used for actual clinical investigation and treatment of Army personnel for several types of diseases, including cancer. Its raw material, radioactive atomic isotopes, will be supplied by the Oak Ridge atomic energy plant in Tennessee. Recommendations of the Atomic Energy Commission guided construction of the laboratory. Its activities will be under the supervision of an isotope committee at the Medical Center headed by Colonel Rufus Holt, Commandant

of the Center's Medical Department Research and Graduate School.

George Washington University has recovered title to its old hospital and medical school buildings at 1335-1339 H Street, N.W., from the Government at a total cost of \$548,167.50. The negotiation was completed, February 28, when President Cloyd Heck Marvin presented a check for \$198,167.50 to Philip B. Fleming, Federal Works Administrator.

The University lost title to the property last year, in return for Federal construction with Lanham Act funds of the new University Hospital at Washington Circle. Under terms of the agreement, the University paid FWA \$100,000 when it moved into the new institution and \$250,000 for five-year lease rights to the H Street building. The check of \$198,167.50 represents the difference between assessed value of the land and the \$350,000 already paid in lease rights. It will give the school clear title to the buildings.

The Medical School is housed at 1335 H Street and the Warwick Memorial Cancer Clinic and research projects at 1339 H Street. Officials said acquisition of the property does not change plans to establish a new medical school building at Washington Circle.

Gallinger Municipal Hospital opened a new central admitting bureau, March 1, to provide more facilities for examining new patients and to give a better check on whether patients are eligible for care at the tax-supported institution. The admission service will be staffed by personnel of the District Health Department's Hospital Permit Bureau and will be open 24 hours a day.

Dr. James Gordon Cumming retired, February 28, as Director of the Bureau of Preventable Diseases after 24 years of service with the Health Department. He was succeeded by Dr. Carl C. Dauer, Assistant Director of the Bureau.

Dr. Cumming first joined the District Health Department in 1921 as Assistant Health Officer and epidemiologist. The next four years he served as Chief of the Philadelphia Bureau of Health, returning to the District Health Department in 1925 as head of the Bureau of Preventable Diseases and Director of Laboratories.

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. Most of these engagements were filled through the Society's Speakers Bureau, which is headed by Dr. James A. Gannon.

Date	Speaker	Subject or Title	Organization
February 23	Dr. Z. M. Lebensohn	"Epilepsy"	Association of Federal Nurses under Civil Service
February 28	Dr. Clayton B. Ethridge	Aims and accomplishments of the Washington Heart Association	District Federation of Women's Clubs
February 28	Dr. James A. Gannon	Tuberculosis	North Capital Citizens' Association
March 7	Dr. Catharine Burch	"Opportunities for Women in Biological and Medical Sciences"	George Washington University Chapter of Mortar Board
March 22	Dr. James A. Gannon	"Medical Superstitions"	Chevy Chase Civitan Group
March 29	Dr. Eloise Kailin	"Hay Fever, Asthma and the Allergies"	Jewish Community Center
April 11	Dr. William F. Burdick	"Child Care"	Parent-Teachers Association of Orr School

During his long tenure of office he has inaugurated a program of diphtheria immunization of infants, resulting in a reduction of infant mortality from this disease from 45 in 1928 to 2 last year. He also organized a program of systematic checking of food establishments and has encouraged the use of mechanical dishwashing equipment. He has written numerous articles on eating utensil sanitation.

Commissioned Captain in the Army Medical Corps in 1917, Dr. Cumming was assigned as Medical Officer in charge of sanitation and disease prevention, and was stationed successively in San Francisco, Cal., San Antonio, Texas, and Newport News, Va. Following the Armistice he served a foreign assignment in Siberia. Upon his return to the States he was assigned to the Office of the Surgeon General of the Army in Washington to assist in the preparation of the medical and surgical history of World War I.

For his service in connection with studies of epidemic influenza and pneumonia, and the reduction of the mortality rate at the Port of Embarkation in Newport News, Dr. Cumming was awarded the Distinguished Service Medal. He was honorably discharged in 1920 as Lieutenant Colonel and has continued actively in the Medical Reserve up to the present.

At a reception held in his honor, February 25, at the Municipal Center, tributes were paid him by Commissioner Guy Mason and Health Officer George C. Ruhland.

Dr. Cumming will retire to his farm in Indian Head, Md.

Dr. Dauer, who succeeds Dr. Cumming, has been in the Health Department since 1937. He received his medical degree from Western Reserve University in Cleveland and special training in epidemiology at Harvard Medical School. He came to the District from New Orleans, La., where he had been a member of the faculty of Tulane University Medical School for four years. Prior to that he had been engaged in public health work in Oregon.

Dr. James A. Alston has been named Superintendent of the **District Training School for the Feeble Minded** at Laurel, Md., succeeding Dr. James Lewald, who died, February 3.

Dr. Alston is well qualified for the post. He is a graduate of Marquette University, Milwaukee, Wis., with internship at St. Francis Hospital in Evanston, Ill., 1938. The following year he served as resident in psychiatry at Shorewood Hospital, Milwaukee, and for two years, 1939-41, at the Mil-

waukee Sanitarium as resident in psychiatry with shock therapies his principal duty. In June, 1941 he joined the staff of Butler Hospital, Providence, R. I., as shock therapist, and later became physician in charge of male service and shock therapy. He remained until October, 1946.

He holds a certificate in psychiatry from the American Board of Psychiatry and Neurology.

In October, 1946 he came to the District Training School as Assistant Superintendent, replacing Dr. Alan Drummond.

Dr. Brooks G. Brown, Chief Medical Officer in Surgery, and **Dr. A. Ralph Monaco**, pathologist and laboratory chief, have resigned their posts at Gallinger Municipal Hospital. Both will enter private practice, Dr. Brown in Washington, and Dr. Monaco in Columbus, Ga.

Dr. Brown, a graduate of George Washington University School of Medicine, was appointed to the Gallinger post in July 1948, after a two-year fellowship in surgery at the Cleveland Clinic.

Dr. Monaco graduated from Georgetown University School of Medicine in 1938. He was appointed to the Gallinger staff in 1945.

Both are physician-veterans of World War II.

Dr. Edward D. Leifer, President of the **District of Columbia Dental Society**, has announced the appointment of **Walter Holland**, 4211 12th Road, South, Arlington, Va., as the Society's first full-time Executive Secretary.

The District Dental Society, a constituent of the American Dental Association, was organized in 1866 and now has over 600 members.

Mr. Holland was on the staff of the Kiplinger Washington Agency before accepting his new position, and has been active in press and public relations work for several years. He has been associated with the Veterans of Foreign Wars and American Trucking Associations, Inc., and was Executive Secretary of the D. C. Trucking Association. He served with the U. S. Navy during World War II.

The **District Pharmaceutical Association**, through its President, Mr. Harold C. Kinner, is announcing its first Executive Secretary, **Mr. Horace Walker**. Mr. Kinner also announces the establishment of an office for the association in Room 913 of the Union

Trust Building, 15th and H Streets, N.W. The telephone number is Executive 0412.

Mr. Walker is well known for his civic activities in Washington. During the last War he served for over five years as Executive Secretary of the D. C. Salvage Committee which conducted the Salvage Program in Metropolitan Washington under the War Production Board. He served a year with the Director of Coördination and Planning, Veterans Administration, and more recently as Executive Director of the Nurses National Memorial.

Mr. Walker was a recent visitor at the Medical Society's office.

Dr. Irving B. Brick, Instructor in Medicine at Georgetown University School of Medicine, has been named a Fellow of the New York Academy of Science in recognition of his articles on internal medicine and gastroenterology which have appeared in medical journals during recent years. Dr. Brick served overseas during the War and was Chief of the Intestinal Section of Walter Reed General Hospital during 1946.

The **American Board of Physical Medicine** was organized in 1947 under the auspices of the Advisory Board for Medical Specialties and has been approved by the Council on Medical Education and Hospitals of the AMA. Its first examinations were held in September, 1947. The following physicians in the Washington Metropolitan Area are listed as diplomates of the Board: Drs. Gervase J. P. Barger, Robert F. Dow, Dean M. Hayes, A. B. C. Knudson, Isadore Levin, J. Wayne McFarland, and B. A. Strickland, Jr.

Dr. Murray M. Copeland attended the National Cancer Conference at Memphis, Tenn., March 25, 26 and 27. The Conference was sponsored by the American National Cancer Society and the National Cancer Institute of the Federal Security Agency. This meeting was held to establish the present trends in cancer research, diagnosis and treatment and to outline future methodology and procedure in handling problems connected with the various phases of cancer activities.

Surgeon General Leonard A. Scheele, of the Public Health Service, addressed the Public Health Forum

of Harvard University School of Public Health at Cambridge, Mass., February 25. He spoke on the shift of emphasis in the Nation's health problems occasioned by the aging of the American population, and the aims of the PHS in the fields of chronic disease and mental illness.

Dr. C. B. Conklin, Clinical Professor of Medicine at George Washington University School of Medicine, reports that his series of 14 lectures on the history of medicine was made a required course for first-year students last year. Included in the course is a consideration of the effects of changing social concepts on medical practice.

The following members of the Medical Society, not previously listed in the *MEDICAL ANNALS*, have been participating in the programs of Professional Staff Proceedings of Walter Reed General Hospital: Drs. Edward J. Beattie, Henry L. Darner, B. Edwin Erikson, John H. Gilligan, Laurence H. Kyle, Daniel F. Lynch, and Jack J. Rheingold.

Dr. Benjamin Manchester presented a paper before the Medical Staff of the Baltimore City Hospitals, March 7. The paper was entitled, "Unipolar Electrocardiography with Special Reference to the Diagnosis of Anteroseptal Infarcts."

Dr. W. Calhoun Stirling attended a two-day joint conference of the Honorary and Reserve Consultants to the Bureau of Medicine and Surgery of the Navy on January 28 and 29 at the Naval Medical Center.

Dr. S. Jack Sugar has been certified by the American Board of Orthopedic Surgery.

Mr. John D. Martin, formerly Assistant Director of Children's Hospital, is now Assistant Administrator of Columbia Hospital.

MEETINGS

Wednesday, May 4

ANNUAL BUSINESS MEETING

Wednesday, May 11

Speakers and subjects to be selected by the Program Committee from abstracts submitted by members of the Society.

CORRESPONDENCE

WASHINGTON, D. C., February 23, 1949

MR. THEODORE WIPRUD
SECRETARY, THE MEDICAL SOCIETY OF THE
DISTRICT OF COLUMBIA
WASHINGTON, D. C.

DEAR MR. WIPRUD:

The Federal Government has called to the attention of the press the apparently deleterious effect resulting from the use of lithium chloride as a substitute for sodium chloride.

For the purpose of cooperating with the Federal Government in its effort to avoid the use of lithium chloride, I am making the request that you, in turn, will take up this matter with the physicians who may have prescribed this product for their patients. It is understood that lithium chloride will be withdrawn from the market as a substitute for table salt. In the meantime, the cooperation of the physicians can be very helpful in avoiding any untoward effect from the use of this salt substitute.

The Department of Health will appreciate information where any such untoward effects from the use of lithium chloride are observed.

Very sincerely,
GEORGE C. RUHLAND, M.D.
Health Officer, District of Columbia

WASHINGTON, D. C., March 21, 1949

MR. THEODORE WIPRUD, SECRETARY
DISTRICT OF COLUMBIA MEDICAL SOCIETY
1718 M STREET, N.W.
WASHINGTON, D.C.

DEAR MR. WIPRUD:

Dr. Dean Maeser Hayes, a member of your Society, has asked me to forward to you the enclosed tearsheets of page 8 of *TIME* magazine for March 21, 1949. Because of a similarity between the names of Dr. D. S. Hayes and Dr. D. M. Hayes, there has been some confusion among the medical profession as to who was responsible for a letter written by Dr. D. S. Hayes under a Washington dateline, which letter appeared in *TIME* magazine of November 15, 1948.

That portion of the letter of Dr. D. S. Hayes published in *TIME* (November 15, 1948) reads:

"... the ones who are being 'done good' are the psychoanalysts at \$25.00 per hour for a couch seance that the patient could get from any fortune teller for a dollar ..."

Dr. Dean Maeser Hayes is particularly desirous of clearing up any confusion which may still remain in the

minds of any of his professional friends or acquaintances, and wishes that the explanation appearing on the enclosed tearsheet be published in the *MEDICAL ANNALS* as soon as possible.

Yours very truly,
OLIVER LLOYD ONION
Attorney at Law

TO THE EDITOR OF TIME

Sir:

Several of my patients have asked me if I wrote the letter which refers to a psychoanalyst's fee for a couch seance [*TIME*, Nov. 15]. The letter was signed by Dr. S. Hayes, M.D., Washington, D. C.

I am the only Dr. Hayes listed in the Washington telephone book, the city directory or the District of Columbia Licensure. I did not write the letter referred to.

DEAN MAESER HAYES, M.D.
Washington, D. C.

Dr. Daniel Hayes of San Anselmo, Calif. wrote the letter from Washington, where he was visiting.—ED.

The following communication was received from Dr. Karl A. Menninger, who was quoted in the February issue of *MEDICAL ANNALS* under the title, "Leaders Urgently Needed." Dr. Menninger writes the Editor:

"I very much appreciate the comments and quotations from my article on leadership which appeared in the February issue of the *Medical Annals*. I am very much distressed, however, that the title of Colonel Samuel Marshall's book, 'Men Against Fire' was omitted from my article. It was published by Wm. Morrow and Company in 1947.

"I hope there will be some way to mention this in a subsequent issue of the *Medical Annals*."

EDITOR'S NOTE: Dr. Menninger failed to mention Colonel Marshall's full name in his article. The Editor is pleased to publish the above communication for the information of *MEDICAL ANNALS*' readers.

BOOK REVIEWS

Blood Transfusion. ELMER L. DEGOWIN, M.D., Associate Professor of Internal Medicine, State University of Iowa; Director, Blood Transfusion Service, University Hospitals, ROBERT C. HARDIN, M.D., Assistant Professor of Internal Medicine, State University of Iowa, AND JOHN B. ALSEVER, M.D., Senior Surgeon, U. S. Public Health Service; Chief, Professional Standards, Hospital Division, U.S.P.H.S. Price, \$9.00. Pp. 587, with 200 diagrammatic drawings. Philadelphia: Saunders, 1949.

For those physicians, students and technicians interested in the problems attendant on blood and plasma therapy, this is a very refreshing book. It is the work of three physicians active in the blood transfusion field during the last ten years. The book comes out at an opportune time, when hospitals and groups of hospitals are working out methods to obtain and process enough donors to meet an ever-increasing demand for blood, plasma and their many derivatives.

The authors point out that heretofore blood transfusion experience has been largely "passed on by word of mouth," despite the fact that the procedures involved present many opportunities for serious results to obtain from poor and careless technics. In putting their own cumulative experiences into a single volume, the authors have written a rather comprehensive review. A good section on laboratory technics is copiously illustrated. The preparation of plasma is given in ample detail although, unfortunately, this section is not sufficiently illustrated. It is helpful to have excellent

directions for preparation of reagents, solutions and equipment when so much effort is being made to induce hospitals to purchase these things ready-made.

Proper attention is paid to administrative details, to blood bank management, to methods of donor procurement, to investigative problems in the use of blood and its fractions, and to use of different types of transfusion apparatus. Fortunately, the historical aspects of blood therapy are limited to a half-dozen pages.

The book has two drawbacks. It appears that the laboratory procedures were written no later than 1945. Newer methods of blood grouping, Rh testing, and cross-matching using whole blood and serum are completely omitted. The results obtained with these newer methods are so rapid and accurate that it is doubtful if saline cell suspensions need ever be used. Secondly, confusion may arise in the student's mind from the authors' disagreements on such things as prothrombin survival in stored blood and the hemolytic role of isohemagglutinins in donor blood and plasma. To other readers these disagreements will be stimulating rather than distracting.

Even with these deficiencies, this is certainly the most comprehensive, readable, and authoritative work on blood transfusion now available.

JOHN B. ROSS, M.D.

Manual of Urology, 4th ed. R. M. LECOMTE, M.D., F.A.C.S., Formerly Professor of Urology, Georgetown University Medical Department; Member of the American Urological Association. Price, \$4.00. Pp. 311. Baltimore: Williams & Wilkins, 1948.

The fourth edition of the Manual has brought the subject of urology up to date in every field. The conciseness of the presentation without any discussion of a controversial nature makes it very useful as either a reference or a complete textbook for the student or the general practitioner.

The illustrations are very good; the bibliography is very extensive and practical so that one may be guided in future exploration of the literature without great difficulty.

The field of new therapeutic agents and newer muscle physiology is broadened in a very understandable manner.

WILLIAM P. HERBST, M.D.

Mayo Clinic Diet Manual. The Committee on Dietetics of the Mayo Clinic. Price, \$4.00. Pp. 329. Philadelphia: Saunders, 1949.

This diet manual is one of the most complete books on diet that I have ever read. It includes practically any diet that one would need to use in the practice of medicine. It is concise and informative. It gives not only the foods necessary in the diet, but also actually states the omissions necessary, and gives the weaknesses of each diet and the replacement necessary. It also gives the rationale of every diet. The chapter on diabetic diet is rather simple and can be used by the average general practitioner. I believe that this book can be used by everyone who has any interest in dietary régime.

SAMUEL BENJAMIN, M.D.

Obstetric Analgesia and Anesthesia—Their Effects upon Labor and the Child. FRANKLIN F. SNYDER, M. D., Associate Professor of Obstetrics and Associate Professor of Anatomy, Harvard Medical School. Price \$6.50. Pp. 401, with 114 figures and 18 tables. Philadelphia: Saunders, 1949.

This book will be of interest to all those engaged in obstetrics and in the care of the newborn. The first section of the book dealing with the physiology of the unborn and newborn is presented in a logical manner. Special emphasis is given to the intrauterine respiration and the effect of various drugs on these respirations. Correlated with this is the rather widespread problem of atelectasis in the newborn.

The second part of the book deals, in a critical manner, with most of the newer methods of sedation used during labor. The hazards are brought out quite clearly. This critical review of the drugs and their effects may help to remind those prescribing them to use smaller doses and so not embarrass the babies by depressing respiration and prolonging labor.

It seemed to the reviewer that the final conclusion to

be drawn from this text is that a combination of the Grantley Dick Read technic and local nerve block is the present ideal for mother and baby. Theoretically this is probably true, but is even more impractical than the use of continuous caudal, which is limited to about 15 per cent of all pregnant women in this country.

In some of the larger centers that are staffed and equipped for either of these methods the percentages will be much higher in direct proportion to the enthusiasm of the staff for the particular method.

J. B. S.

BOOKS RECEIVED FOR REVIEW

Acknowledgment is made of the following books which have been received for review:

Current Therapy 1949—Latest Approved Methods of Treatment for the Practicing Physician. HOWARD F. CONN, M.D., Editor. Consulting Editors: M. Edward Davis, Vincent J. Derbes, Garfield G. Duncan, Hugh J. Jewett, William J. Kerr, Perrin H. Long, H. Houston Merritt, Paul A. O'Leary, Walter L. Palmer, Hobart A. Reimann, Cyrus C. Sturgis, Robert H. Williams. Price, \$10.00. Pp. 672. Philadelphia: Saunders, 1949.

Practical Aspects of Thyroid Disease. GEORGE CRILE, JR., M.D., F.A.C.S., Department of Surgery, Cleveland Clinic. Price, \$6.00. Pp. 355, with 101 illustrations. Philadelphia: Saunders, 1949.

Clinical Orthoptics—Diagnosis and Treatment. MARY EVERIST KRAMER, Supervisor, The Orthoptic Department, The George Washington University Hospital, Washington, D. C. Edited by ERNEST A. W. SHEPPARD, M.D., Professor of Ophthalmology, The George Washington University School of Medicine, Washington, D. C., AND LOUISA WELLS-KRAMER, Certified Orthoptic Technician, Washington, D. C. Price, \$8.00. Pp. 475, with 147 illustrations. St. Louis: Mosby, 1949.

Atlas of Peripheral Nerve Injuries. WILLIAM R. LYONS, PH.D., Associate Professor of Anatomy, University of California Medical School, AND BARNES WOODHALL, M.D., Professor of Neurosurgery, Duke Medical School, Durham, North Carolina. Price, \$16.00. Pp. 339, illustrated. Philadelphia: Saunders, 1949.

Handbook of Diseases of the Skin. RICHARD L. SUTTON, M.D., Emeritus Professor of Dermatology and

Syphilology, University of Kansas Medical School, AND RICHARD L. SUTTON, JR., M.D., Associate Professor of Dermatology and Syphilology, University of Kansas Medical School. Price, \$12.50. Pp. 749, with 1057 illustrations. St. Louis: Mosby, 1949.

**JAMES BAYARD GREGG
CUSTIS, B.A., M.D.**

(1882-1949)

Dr. J. B. Gregg Custis, Chief of Gynecology at Homeopathic Hospital, died of coronary occlusion, February 28, 1949, at his home, 3041 Sedgwick Street, N.W.

Dr. Custis was the third generation of his family to practice medicine in Washington. He was born, November 21, 1882, the son of Dr. James B. G. Custis and the grandson of Dr. George Washington Neil Custis, both of whom had been active in medicine in Washington for many years. His mother was Mrs. Catherine Ritter Custis.

He received his early education at Friends' School. He stood second in his class at Johns Hopkins University, where he obtained his B.A. degree in 1903, and was graduated first in his class from the New York Homeopathic Medical College in 1907. He took his intern and resident training at Flower Hospital, New York, before returning to the District in 1909 to begin practice. His office was located at 1852 Columbia Road, N.W.

For 21 years Dr. Custis was head of obstetrics at the Florence Crittenton Home. He was a trustee of and a member of the Executive Committee and staff of Homeopathic Hospital. During World War I he served as Lieutenant in the Army Medical Corps.

Dr. Custis was a Past President of the American Institute of Homeopathy (1938), a member of the American Medical Association, the Pan American Homeopathic Medical Congress, the Southern Homeopathic Society, the Homeopathic Society of the District of Columbia, and the Clinical Club of Washington. He was elected to Active membership in the District Medical Society in 1930.

He was also a member of the Alpha Sigma and Phi Kappa Psi fraternities, the Columbia Country Club, the University Club, and the Chiron Club.

He was a member of the Society of Oldest Inhabitants of Washington and the American Legion. An expert at bridge, he was a member of the Washington and Federal Bridge Leagues, as well as President of the Board of Directors of the Chess Club.

Surviving are his wife, Mrs. Inez May Earley Custis; a daughter, Mrs. Joseph H. Watson, and a son, John Keith Custis, both of 2700 Que Street, N.W.; and a brother, Dr. Horace H. Custis, of 3125 Worthington Street, N.W.

**MELVIN PRICE ISAMINGER,
B.A., M.Sc., Dr.P.H.**

(1897-1949)

Dr. Melvin Price Isaminger, who had been on leave of absence as head of the Bureau of Public Health Information of the District Health Department since November, 1946, died March 18, 1949, at his home, 4300 River Road, N.W. He was first hospitalized at Mount Alto Hospital, but for the last 18 months, had been a patient at McGuire General Hospital, Richmond, Va. He returned home a month ago and had expected to return to duty at the Health Department in the summer. Dr. Isaminger was a veteran of World War I.

Dr. Isaminger was born in Rogers, Michigan, August 29, 1897. He received his academic and professional training at the University of Michigan, with the following degrees: Bachelor of Arts, 1925; Master of Science, 1926; and Doctor of Public Health, 1927. From 1926-30 he was Instructor of Hygiene and Public Health at the University of Michigan, leaving there to become Professor of Hygiene at the Oregon State College.

In June, 1937 he came to Washington to set up the Bureau of Public Health Information, the central office of education and information for the Health Department's many bureaus. He also established the *Weekly News Letter*, which grew into a weekly bulletin entitled *Health in the Capital City*, and a monthly publication, *Capital Health*, which was discontinued during the War.

Dr. Isaminger had served in an advisory capacity to the District Tuberculosis Association, the District Social Hygiene Society, and the old Council of Social Agencies. He was formerly a member of the Executive Committee of the Department of

Health and Physical Education, National Education Association, and had also been a lecturer in public health at Catholic University of America.

He was a Fellow of the American Public Health Association and the American Association for the Advancement of Science, a member of the American Association of University Professors, and a member and Past President of Delta Omega fraternity, national honorary public health society. He was an Associate member of the Medical Society of the District of Columbia since 1939.

He was the author of several books and articles on health education and co-author of "The Practice of Personal Hygiene," a textbook.

He is survived by his wife, Mrs. Thora Isaminger, two sons, John and James, and two daughters, the Misses June and Thora Jean, residing at home.

Vomiting of Pregnancy—Dill

(Continued from page 184)

7. SUNDE: *Ibid.*, 1940, 20, 238.
8. HAUCK: *Ibid.*, 1940, 20, 234.
9. OLOW: *Ibid.*, 1940, 20, 232.
10. BOUFFE DE ST. BLAISE, G.: *Ann. de gynéc. et d'obst.*, 1898, 50, 342.
11. VEIT, J.: *Zentralbl. f. Gynäk.*, 1904, 28, 1.
12. JOHNSON, H. W.: *Surg., Gynec. & Obst.*, 1940, 70, 513.
13. LEVINE, P., AND POLAYES, S. J.: *Ann. Int. Med.*, 1941, 14, 1903.
14. ALVAREZ, W.: *The Mechanism of the Digestive Tract*. New York: Hoeber, 1922.
15. ALBRECK, J.: *Arch. f. Gynäk.*, 1922, 41, 117.
16. HIRST, J. C.: *Am. J. Obst.*, N. Y., 1919, 79, 327.
17. EVANS, H. M., KOHLS, C. L., AND WONDER, D. H.: *J.A.M.A.*, 1937, 108, 287.
18. VIGNES, H., LAURET, G., OLIVIER, J., AND OLIVIER-PALLUD, P.: *Maladies des femmes enceintes*. Paris: Masson, 1935.
19. ANSELMINO, J.: *Arch. f. Gynäk.*, 1936, 161, 273.
20. KEMP, W. N.: *Endocrinology*, 1932, 16, 434.
21. FREEMAN, W., MELICK, J. M., AND McCLUSKY, D. K.: *Am. J. Obst. & Gynec.*, 1937, 33, 618.
22. HAWKINSON, L. F.: *J.A.M.A.*, 1938, 111, 1225.
23. SMITH, G. V. S., AND SMITH, O. W.: *Surg., Gynec. & Obst.*, 1935, 61, 27.
24. AHLFELD, F.: *Arch. f. Gynaek.*, Berl., 1881, 18, 307.
25. KALTENBACH, R. L.: *Ztschr. f. Geburtsh. u. Gynäk.*, Stuttg., 1891, 21, 200.
26. WINTER, E. W.: *Zentralbl. f. Gynäk.*, 1919, 43, 10.
27. SCHROEDER, E.: *Monatschr. f. Geburtsh. u. Gynaek.*, Berl., 1922, 58, 227.
28. SCHWAB, M.: *Zentralbl. f. Gynäk.*, Leipz., 1921, 45, 956.
29. STRAUSS, M. B., AND McDONALD, W. J.: *J.A.M.A.*, 1933, 100, 1320.

30. WEINSTEIN, B. B., MITCHELL, G. J., AND SUSTENDAL, G. F.: *Am. J. Obst. & Gynec.*, 1943, 46, 283.
31. HESSELTINE, H. C.: *Ibid.*, 1946, 51, 82.
32. STANDER, H. J.: *Gynecology and Obstetrics*. Hagerstown, Md.: Prior.
33. FISCHER, F.: *Prag. med. Wchnschr.*, 1891, 16, 545.
34. BENNETT: See ref. 4.
35. SOLOMONS, B.: *Am. J. Obst. & Gynec.*, 1935, 25, 180.
36. VON OETTINGEN, K.: *Zentralbl. f. Gynäk.*, 1934, 58, 2545.
37. LEVY-SOLAL, DALSACE, J., AND COHEN-SOLAL: *Gynéc. et obst.*, 1928, 18, 27.
38. DRAZANCIC, F.: *Zentralbl. f. Gynäk.*, 1936, 60, 2852.
39. FINCH, J. W.: *J.A.M.A.*, 1942, 719, 401.
40. PECKHAM, C. H.: *Am. J. Obst. & Gynec.*, 1939, 17, 776.
41. WILLIAMS, W.: *Bull. Johns Hopkins Hosp.*, 1906, 17, 71.
42. SCHJÖTT-RIVERS, E.: *Acta obst. et gynec.*, Scandinav., 1939, 19, 290.
43. SAENGER, H.: *Arch. f. Gynäk.*, 1930, 142, 152.
44. SHEEHAN, H. L.: *J. Obst. & Gynaec.*, Brit. Emp., 1939, 46, 685.
45. WETTERDAL, P.: *Acta obst. et gynec.*, Scandinav., 1939, 19, 201.
46. HIRST, J. C., AND STRAUSS, F.: *Am. J. M. Sc.*, 1938, 196, 95.
47. MENNINGER, W. C.: *Bull. Menninger Clin.*, 1943, 7, 15.
48. KROGER, W. S., AND DELEE, S. T.: *Am. J. Obst. & Gynec.*, 1946, 51, 544.

Leukemia Treated with Urethane

(Continued from page 187)

BIBLIOGRAPHY

1. HADDOW, A., AND SEXTON, W. A.: Influence of carbamic esters (urethanes) on experimental animal tumors. *Nature*, London, 1946, 157, 500.
2. PATERSON, E. S., THOMAS, I., HADDOW, A., AND WATKINSON, J. M.: Leukemia treated with urethane, compared with deep X-ray therapy. *Lancet*, 1946, 1, 677.
3. BEDDINGER, P. L., PONCHER, H. G., AND LIMARZI, L. R.: Effect of urethane on leukemia. *J. Lab. & Clin. Med.*, 1947, 32, 1394.
4. HIRSCHBOECK, J. S., LINDERT, M. C. F., CHASE, J., AND CALVY, T. L.: Effects of urethane in treatment of leukemia and metastatic malignant tumors. *J.A.M.A.*, 1948, 136, 90.
5. WEBSTER, J. J.: Urethane in leukemia. *Ibid.*, 1947, 135, 901.

Silas Weir Mitchell—Podolsky

(Continued from page 190)

Francois" and "Constance Trescot," were published in the following decade. These novels also attained great popularity. Dr. Mitchell derived great satisfaction from his work as a physician and novelist. In his own city of

Philadelphia he was looked upon as its First Citizen. Many new honors came to him, honorary degrees from Bologna, Edinburgh, and many American universities.

Weir Mitchell knew no rest even in his old age. He kept going, acting as a consultant in nerve diseases, and writing. At 78 he published "The Red City," which proved to be one of his most popular novels. The same year saw the appearance of a volume of short stories and one of his poems. He wrote 2 more novels toward the end of his long life. "John Sherwood" was published when he was 81 and "Westways" when he was 84.

Dr. Mitchell's final illness was brief. In the final days of December, 1913 he became ill with a severe attack of influenza. On January 4, 1914 he died. In the delirium which accompanied his illness his mind returned continually to his experiences in the War Between the States, half a century before. He rambled on about battles and mutilations, amputated limbs and how lives might be saved. Throughout his illness he was nursed by his wife. After his death she too broke down and 9 days later was dead.

The last poem of S. Weir Mitchell began with the following lines:

"I know the night is near at hand,
The mists lie low on hill and bay,
The autumn leaves are dewless, dry;
But I have had the day."

He had had the day, the day as a world-famous neurologist and novelist, the day in which he proved useful to his fellow men, the day in which he accomplished much that has lived after him.

Physicians Needed for Armed Forces

(Continued from page 215)

2. Those others who were deferred from service during the War in order that they might complete their educations at their own expense.

Physicians and dentists are asked to volunteer for a minimum of one year and would receive \$100 a month in addition to prescribed pay and allowances for their rank.

Physicians and dentists who volunteer for service will be used, as far as possible and feasible, in assignments commensurate with their professional skills and abilities. Arrangements would be made by the services to allow individuals who volunteer at this time to finish their training periods before being called to active duty. Calls to active service would be staggered so as to cause minimum disruption to civilian hospital training programs.

Washington Physicians of Yesterday—Borden

(Continued from page 206)

Dr. Borden was a member of many medical and other societies: the District of Columbia Medical Society and Association, 1909; Association of Military Surgeons; Association of American Medical Colleges; American College of Surgeons, founder and Fellow; Fellow of Microscopical Society of England; Sons of the American Revolution; New York Avenue Presbyterian Church; the Masonic order; Cosmos Club, Chevy Chase Club, Army and Navy Club of Washington, D. C., and the Crescent Yacht Club of Watertown, New York. He was memorialized in "Who's Who in America."

Besides lesser contributions Dr. Borden was author of "Photomicrographs," 1888-91, 22 plates; "Use of Roentgen Rays in the Spanish War," 1900, 98 pages; "Essay on Military Surgery," 1905, 68 pages.

Dr. Borden married Jennie E. Adams, October 23, 1883. His son, Dr. Daniel LeRay Borden, has also had an outstanding professional career in Washington.

As with most busy physicians, he had avocational interests aside from his professional activities. His particular hobby or sport was yachting in the waters of Lake Ontario near his birthplace and summer home, and he was an ardent participant in sailing races.

Dr. Borden died August 18, 1934, at his summer residence at Chaumont, New York. In 1936 his family established in George Washington University an endowment of the William Cline Borden Memorial Lectureship in Surgery. In both military and civilian fields Dr. Borden was distinguished as a surgeon, hospital organizer and administrator, a teacher and director of medical education; and for his achievements and personal qualities he was generally esteemed and honored.

JOHN B. NICHOLS, M.D.

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GYNECOMASTIA AS A DIAGNOSTIC SIGN*

LAURENCE H. KYLE, M.D.

Instructor in Medicine and William Wade Hinshaw Cancer Research Fellow, Georgetown University School of Medicine

STIGMATA which fall into the sexual sphere have always excited the curiosity of the human race. Consequently, documentation of instances in which the male breast became abnormally enlarged dates far back in both medical and lay literature.¹ Because of the sexual connotations of gynecomastia, however, little attempt was made to identify it with any condition other than genital malformation. In 1886 Gruger² classified it into 3 types: one in which the male organs were normally developed, a second with malformation of these organs, and a third or spurious type in which the mammary growth was due to fat or tumor. During the past 10 years this subject has received increasing scientific attention. With the development of clearer endocrinologic thinking and better hormonal studies it has become more and more apparent that gynecomastia may be a not uncommon sign of an underlying metabolic or endocrine disturbance.

Gynecomastia means essentially the development of a female type of breast structure in the male and is best approached with a basic under-

standing of the hormonal influences which affect development of the normal breast.

The estrogenic hormone produced by the ovary (and probably also by the adrenals) stimulates both nipples and mammary glands. In most species, and probably in man, it stimulates the growth of the ducts and the periductile connective tissue. Estrogens are responsible for the mammary growth which develops at puberty and for a portion of the increase in the size of the breast appearing during pregnancy. Progesterone causes further enlargement of mammae, and in most animals the combined effects of estrogen and progesterone influence the growth of the alveololobular system. The effects of progesterone on the breast are seen predominantly during pregnancy. There is some evidence in the literature, much of it conflicting, which suggests that estrogen and progesterone exert their effect through the intermediary of the pituitary gland, and it is possible that there may be a pituitary mammo-genic hormone which is yet to be identified. The actual secretion of milk at the end of pregnancy is under the control of the lactogenic hormone of the pituitary gland. Other hormones may be implicated as affecting mammary tissue. The thyroid hormone appears to potentiate the

*Read at the Regional Meeting of the American College of Physicians in Washington, D. C., February 19, 1949.

action of both estrogen and progestin, although the mechanism of this potentiation is obscure. Adrenal cortical extract, which includes several steroid hormones, has a stimulant action on the breasts. Even the synthetic, salt-regulating hormone, desoxycorticosterone, appears to affect breast tissue. There is good evidence that the androgenic hormones produced by the testes and the adrenals have an estrogen-like influence on the human breast. Although this action may be mediated through the mechanism of pituitary stimulation, which occurs when androgens are administered in small doses, an alternative explanation is based on the structural similarity of the androgenic and estrogenic hormones.

TABLE 1
Breast Enlargement in the Male

Pseudogynecomastia
New growths
Gynecomastia
Puberal ("subareolar node")
? Non-hormonal
Hormonal

■ Breast enlargement in the male can be divided into 3 general groups (table 1). Pseudogynecomastia, which is due to the deposition of fatty tissue in or under the breast, is most often confused with the condition under discussion even though Hutchinson as early as 1892 was careful to differentiate between the two.³ The confusion is increased by the fact that eunuchoid individuals, who are expected to become "feminine," tend to develop adiposity of the pectoral areas.⁴ A similar type of fat distribution is seen in preadolescent obesity, and its presence may lead to the erroneous diagnosis of sexual maldevelopment. Carcinoma of the male breast is very uncommon but the possibility of its existence must always be kept in mind. Gynecomastia is a true hypertrophy of the breast tissue. It consists of a mass or nodule under the nipple which, although often attached to the nipple, is free of other structures. The mass is firm with a smooth outline and may be tender to palpation or painful from the irritation of

underclothing. Frequently the mass takes the form of a disc, the edges of which can be sharply demarcated from the surrounding tissue. Other changes, such as pigmentation of the areola, prominence of the nipple, and development of Montgomery's glands may occur. Although secretion is occasionally reported in cases of gynecomastia, this is believed to consist of a mucoid or protein material, and there is considerable doubt as to whether milk or colostrum can be secreted in gynecomastia.⁵

A subdivision of gynecomastia into 3 types is practical: (1) The most common type, seen at the time of puberty, has been described by Jung and Shafton⁶ and termed by these authors the subareolar node. This consists of a small nodular mass of tissue in one or both breasts which is presumably the result of a transitory change in the androgen-estrogen ratio. The growth is purely physiologic and rarely lasts for more than a few months. (2) A considerable number of cases of breast development in males are described for which no hormonal cause can be found. As our knowledge of endocrinology has broadened, such idiopathic cases have been reported with decreasing frequency. Although this type is usually unilateral, it may be bilateral. (3) The remaining type consists of gynecomastia associated with a definite disease entity and will be considered below in more detail. Although usually bilateral, this type may be unilateral. It is common to find that the breasts are unequal in size, or to elicit a history of one breast having become enlarged before the other was affected.

As was noted above, there are a number of hormones which may act on the breast. In pathologic conditions leading to gynecomastia, all of these, and perhaps others, may be operative. Although the presumed etiology of different types of gynecomastia is best discussed separately, a few general statements in this regard are worthy of review. There are two main ideas as to the hormonal implications of gynecomastia. One is to the effect that gyne-

comastia results from an excessive amount of circulating estrogen. This increase in estrogen may be absolute, as in liver disease or following estrogenic therapy, or relative, because of a lowering of the androgen-estrogen ratio. Experimentally, gynecomastia can be produced both in humans and animals by the administra-

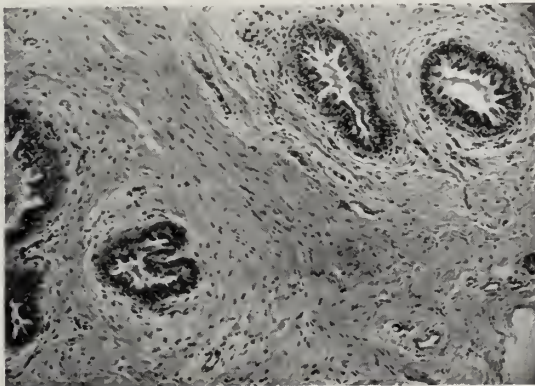


FIG. 1. The histologic appearance of gynecomastia; note both dense and loosely arranged stroma, proliferation of the ductile epithelium, secretion within the ducts, and marked increase in the number of connective tissue cells.

tion of estrogens. The second idea attaches more importance to the mammogenic action of androgen and indicates that under normal conditions a hormone analogous to estrogen, sometimes referred to as “X-hormone” or “inhibin,” and presumably produced by the testicular tubules, inhibits such action. Both of these ideas have considerable experimental and clinical evidence in their favor and the two are not incompatible. The possibility might be kept in mind that either the male or the female sex hormone may cause gynecomastia through the intermediary of pituitary stimulation. Consideration should also be given to the possibility that the hormones readily measurable at the present time may not be identical with those that are active within the body.

Karsner⁵ has given a very complete description of the pathologic changes in gynecomastia. These consist of an increase in connective tissue, the stroma being very dense and the periductile tissue more loosely arranged; proliferation of

the ductile epithelium with increase in the number of ducts; and increase in cells of the connective tissue to give a picture suggestive of inflammation. A representative example is shown in figure 1. According to Dunn,⁷ stilbestrol-induced gynecomastia is harder, firmer and slower to resolve than that type induced by the administration of the natural estrogens. There is some evidence that there is more ductile hypertrophy in the types induced by estrogens than in those associated with secondary testicular atrophy.

The more important causes of gynecomastia are listed in table 2.

TABLE 2
Causes of Hormonal Gynecomastia

1. Testicular tumors	Choriocarcinomas Interstitial cell tumors
2. Testicular atrophy	Klinefelter's syndrome Prepuberal castration syndrome Secondary to injury, infection, etc.
3. Thyrotoxicosis	
4. Adrenal lesions	Feminizing tumors Cushing's syndrome Adrenogenital syndrome
5. Hepatic disease	Cirrhosis Infectious hepatitis
6. Malnutrition (? vitamin B deficiency)	
7. Hormone therapy	Estrogens Testosterone (in hypogonadal patients) Adrenal cortical extract Desoxycorticosterone acetate
8. Miscellaneous	Tuberculosis, leprosy, pulmonary tumors, pituitary tumor, following prostatectomy.

A considerable number of testicular tumors are often found to be associated with development of the breast. Gilbert⁸ discussed this subject in some detail and was careful to distinguish between gynecomastia which could possibly be attributed to hormonal secretion of

the tumor itself and enlargement occurring with testicular atrophy secondary to surgical or irradiation therapy. This author demonstrated some relation between excessive production of chorionic gonadotropin and the development of gynecomastia, but noted that estrogen production was also increased. Although interstitial cell tumors of the testicle have been noted in association with gynecomastia, there is considerable question as to whether this type of tumor may not develop from adrenal cell rests in the testes. Gynecomastia has also been noted in the so-called extragenital chorion-epithelioma.

Testicular atrophy is undoubtedly a common etiologic factor in development of the male breast. Klinefelter's syndrome⁹ is an interesting combination of testicular atrophy and gynecomastia associated with an increased excretion of pituitary gonadotropins. The atrophy involves only the tubular component of the testes, the interstitial cells being normal or nearly normal in number. Although the 17-ketosteroid excretion (a rough measure of androgen production) may be somewhat below normal limits, these patients are masculinized and have normal sexual function, but are sterile. Klinefelter and his associates explain the development of gynecomastia in this syndrome on the assumption that androgen is a mammogenic agent which is normally inhibited as regards activity on the breast by some substance (X-substance) produced by the testicular tubules. This material may be produced by the Sertoli cells. Del Castillo¹⁰ has substantiated this concept to a considerable degree by describing a group of patients similar to those of Klinefelter in respect to tubular atrophy but in whom the Sertoli cells were still present. In delCastillo's patients there was no increase in excretion of pituitary gonadotropins and no gynecomastia.

Castration does not ordinarily give rise to gynecomastia, although it invariably results in an increase of pituitary gonadotropic hormone. Lack of breast enlargement following castration

is a strong argument in favor of the hypothesis that androgens are mammogenic rather than antimammogenic. Heller and Nelson¹¹ have reported a syndrome, referred to as "prepuberal castration," in which gynecomastia occurred although there was but a remnant of testicular tissue present.

Gynecomastia may result from a number of secondary types of testicular atrophy, the most frequent being due to orchitis in association with mumps. Atrophy may follow other types of orchitis. Destruction of the tubular component of the testes may also occur after trauma and may result from surgical interference with the blood supply of the testicle. Tubular atrophy invariably takes place in instances of undescended testes. A number of possibilities can be advanced in explanation of the gynecomastia. The breast enlargement most probably is secondary to lack of "inhibin," although a change in the androgen-estrogen ratio or an increase in pituitary gonadotropins may be the responsible factors.

Gynecomastia has been observed in association with a number of adrenal diseases. Certain types of adrenal tumor give rise to gynecomastia in association with other signs of feminization, and in some a definite increase in excretion of estrogen has been demonstrated. Cushing's syndrome has been implicated in enlargement of the male breast, as has the adrenogenital syndrome. Gynecomastia may rarely occur in a patient with Addison's disease, and this association is very difficult to explain.

Thyrotoxicosis has been noted in association with gynecomastia in a few patients,¹² and here again several possibilities can be offered. The development may result from the potentiating effect of thyroid hormone on the sexual hormones. It could be explained as due to the hepatic dysfunction which is so frequently associated with thyrotoxicosis. Another logical explanation would be on the basis of the vitamin B deficiency or the undernutrition seen commonly in thyrotoxic patients. There is no

evidence that the thyroid-stimulating hormone of the pituitary, believed necessary in the genesis of Grave's disease, has any direct influence on mammary tissue.

During the last few years interest in the subject of gynecomastia has been greatly stimulated by the observation that it may be associated with hepatic cirrhosis in a not inconsiderable percentage of cases.¹³ At about the same time Silvestrini and Corda noted the association of cirrhosis, testicular atrophy and gynecomastia, and the term "Silvestrini-Corda syndrome" is frequently attached to this triad. There is good evidence that a number of the clinical features long associated with portal cirrhosis may be due to an excessive amount of circulating estrogen. A list of these is included in table 3.

TABLE 3
Features of Cirrhosis Attributable to an Excess of Estrogen

PROBABLE	POSSIBLE
Testicular atrophy	Impotence
Gynecomastia	Loss of libido
Decreased axillary hair	Menstrual irregularities
Cutaneous "spiders"	Cystic mastitis
Palmar erythema	Fluid retention

In their discussion of the relationships between chronic hepatic disease and gynecomastia, Edmonson and his associates¹⁴ wondered why no instances of breast enlargement had been seen in association with acute hepatitis. Since that time 3 such instances have been reported, and in 2 of these it was noted that the gynecomastia appeared during recovery from homologous serum hepatitis.¹⁵

Theories as to the cause of gynecomastia in hepatic disease have ranged from the rather fanciful one that cirrhotics drank more milk and that milk, being a female substance, could cause gynecomastia, to the modern and more scientific concept that gynecomastia is due to excessive amounts of circulating estrogen. Our present information in respect to this presumed etiologic factor can be summed up as follows:

(1) The liver inactivates estrogens by conjugation. (2) This inactivation can be prevented by liver destruction, poisoning of the enzyme system necessary for the process, and vitamin B-complex deficiency. (3) An excessive amount of estrogen will result in mammary development. Androgens are also inactivated by the liver, and it is therefore possible that the androgens might also be increased in patients with hepatic disease. However, most studies to date have shown a low 17-ketosteroid excretion in cirrhotics and thus a low androgen-estrogen ratio.

Another possible explanation of the development of gynecomastia in hepatic disease is on the basis of testicular atrophy, since it is well known that testicular atrophy is a frequent complication of cirrhosis. However, the fact has been well established that excessive estrogen, especially in the presence of a diseased liver, will lead to testicular atrophy.¹⁶ It is best at the present time to consider that both testicular atrophy and gynecomastia result from decreased inactivation of estrogen, with the reservation in mind that the testicular atrophy may cause a more marked breast enlargement.

During the past war starvation was frequent and gynecomastia was observed in persons suffering over long periods of time from malnutrition. Klatskin's studies¹⁷ on 300 prisoners of war kept for long periods on semistarvation diets revealed that 36 had gynecomastia and 12 others had a history of having had gynecomastia during their imprisonment. He offered several possibilities as to the cause of this gynecomastia. These included inability of the liver to act on estrogens because of the malnutrition, decrease in testicular function with deficiency of X-substance, and pituitary insufficiency secondary to poor nutrition.

The possibility that vitamin B deficiency may be operative in the production of this type of gynecomastia must be considered, because the Biskinds¹⁸ have demonstrated that vitamin B complex is necessary in the inactivation of

estrogens, whereas it is not essential in similar conjugation of androgenic hormones. Evidence that vitamin B complex deficiency may be an important factor is the observation made by Klatskin, and later discussed by Jacobs,¹⁹ that gynecomastia either developed primarily or became much worse upon resumption of a more adequate diet. Although it is theoretically possible that this additional diet may have contained a larger amount of steroid hormone precursors, the assumption is more probable that an increased caloric intake in persons depleted of their vitamin stores may have caused a temporary vitamin deficiency.

Gynecomastia has developed following administration of a number of hormonal substances. The administration of estrogens is a common cause of breast enlargement, both in animals and in the human. Such development is seen not infrequently at the present time because of the common use of estrogens in the treatment of metastatic prostatic carcinoma. Of interest is the reported appearance of gynecomastia in pharmaceutical workers engaged in the preparation of estrogenic hormone.

Administration of androgens has caused breast development in animals and in humans. McCullagh²⁰ has reported instances in which the administration of methyl testosterone to hypogonadal persons resulted in gynecomastia. It is unknown whether this hormone would so affect normal individuals, and its action as described by McCullagh fits well with the hypothesis of Klinefelter and his associates in respect to the mammogenic action of androgens.

Gynecomastia has been reported in patients treated with adrenal cortical extract and desoxycorticosterone acetate. There is some rather poorly documented evidence in the literature that administration of chorionic gonadotropin may stimulate breast growth. If this is true the pathogenesis of the gynecomastia in functioning chorionepitheliomas of the testes would be apparent.

Gynecomastia has also been observed in a number of miscellaneous conditions. These include pituitary tumors, tuberculosis, leprosy, leukemia, intrathoracic tumors, and following prostatectomy. It is difficult to establish any hormonal etiology in these cases, but it should be noted that in the majority of such cases there was chronic illness, debilitation and malnutrition. It is strongly probable that malnutrition together with vitamin deficiency was the predisposing factor in the development of the gynecomastia in many of these diseases.

A number of articles dealing with this subject have referred to the dangers of the development of mammary carcinoma in patients with gynecomastia. Karsner⁵ has pointed out that there was no evidence of carcinoma in the 284 cases that he studied nor in over 100 cases studied by Lewis and Geschickter. Karsner believes there may be two reasons for the discrepancy between these findings and those mentioned elsewhere in the literature. First, there may have been a faulty pathologic interpretation of some reported cases, since he has observed that gynecomastia may closely simulate the histologic appearance of carcinoma. Second, he believes that some persons may have been erroneously diagnosed as having gynecomastia when in reality the breast was the site of a primary carcinoma.

Table 4 is offered for the purpose of showing the patients with gynecomastia seen in this area over a 12-month period. Cases following estrogen administration are not included. It may be noted that presumed etiologic factors show a fairly wide range, but it should also be observed that these patients were seen by an internist and may possibly stress the hormonal causes. Patients with idiopathic or "non-hormonal" gynecomastia are usually referred to surgeons for breast amputation because of the embarrassment incident to their breast enlargement. It must be kept in mind that if patients of this type were more carefully studied it is not entirely improbable that many of them

would be found to have some basic underlying or vitamin deficiency its presence should indicate the need for more intensive therapy.

TABLE 4
Cases of True Gynecomastia
(Exclusive of those following treatment with estrin)

AGE	LOCATION	MAXIMUM SIZE	PRESUMED ETIOLOGY	COURSE
		cm.		
14	left	2.0	Puberal type	Becoming smaller
15	bilateral	4.0	Puberal type	Regressed
16	bilateral	5.0	?Klinefelter's syndrome	Surgical removal
24	bilateral	4.5	Hyperthyroidism	Regression with PTU
25	bilateral	4.5	Vitamin B deficiency	Regression with Rx
28	bilateral	8.0	Hepatitis	Present terminally
			Bilateral undescended testes	
40	left	3.5	Testicular atrophy-mumps	Unchanged
51	bilateral	3.5	Testicular atrophy	Unchanged
			Metastatic lung carcinoma	
56	bilateral	5.0	Portal cirrhosis	Regressed
62	bilateral	3.5	? Cardiac cirrhosis	Partial regression

SUMMARY

Gynecomastia, or development of a female type of breast structure in the male, is a fairly common finding in medical practice. It may be associated with a large number of diseases, and in the majority of these a reasonable explanation can be advanced for the mammary growth. Two main causative factors appear to be operative in the majority of cases. One consists of an increase in the amount of circulating estrogen. The other involves atrophy of the tubular component of the testes, such atrophy resulting in diminished production of a substance which normally inhibits the mammo-genic action of androgens.

Gynecomastia is of obvious interest to the endocrinologist but, in addition, has 3 main points of value in general medicine: (1) Its occurrence would suggest the presence of a number of diseases; (2) its detection would be of obvious value when carrying out sterility studies; and (3) when seen in any person who has a condition predisposing to undernutrition

BIBLIOGRAPHY

1. GOULD, G. M., AND PYLE, W. L.: *Anomalies and Curiosities of Medicine*. Philadelphia: Saunders, 1900, p. 395.

2. GRUGER, cited in *Brit. M. J.*, 1886, 2, 172.

3. HUTCHINSON, J.: *Arch. Surg.*, 1892, 3, 327.

4. LEWIN, M. L.: *J. Clin. Endocrinol.*, 1941, 1, 511.

5. KARSNER, H. T.: *Am. J. Path.*, 1946, 22, 235.

6. JUNG, F. T., AND SHAFTON, A. L.: *Illinois M. J.*, 1938, 73, 115.

7. DUNN, C. W.: *J.A.M.A.*, 1940, 115, 2263.

8. GILBERT, J. B.: *J. Urol.*, 1940, 44, 345.

9. KLINEFELTER, H. F., REIFENSTEIN, E. D., AND ALBRIGHT, F.: *J. Clin. Endocrinol.*, 1942, 2, 615.

10. DEL CASTILLO, E. B., TRABUCCO, A., AND DE LA BALZE, F. A.: *Ibid.*, 1947, 7, 493.

11. HELLER, C. G., AND NELSON, W. O.: *Ibid.*, 1943, 3, 573.

12. STARR, P.: *J.A.M.A.*, 1935, 104, 1988.

13. LLOYD, C. W., AND WILLIAMS, R. H.: *Am. J. Med.*, 1948, 4, 315.

14. EDMONSON, H. A., GLASS, S. J., AND SOLL, S. N.: *Proc. Soc. Exper. Biol. & Med.*, 1939, 42, 97.

15. KLATSKIN, G.: *Am. J. M. Sc.*, 1947, 214, 121.

16. MORRIONE, T. G.: *Arch. Path.*, 1944, 37, 39.

17. KLATSKIN, G., SALTER, W. T., AND HUMM, F. D.: *Am. J. M. Sc.*, 1947, 213, 19.

18. BISKIND, M. S., AND BISKIND, G. R.: *Endocrinology*, 1942, 31, 108.

19. JACOBS, E. C.: *Ann. Int. Med.*, 1948, 28, 792.

20. McCULLAGH, E. P., AND ROSSMILLER, H. R.: *J. Clin. Endocrinol.*, 1941, 1, 496.

BACITRACIN THERAPY IN PYOGENIC INFECTIONS OF THE SKIN

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BACITRACIN is an effective agent for topical use in the treatment of pyogenic cutaneous infections. It appears to have a wider antibacterial range than other antibiotics used locally. It is strongly inhibitory for many gram-positive cocci, both aerobic and anaerobic, and also for the gram-negative meningococci and gonococci.¹ It is ineffective for gram-negative bacilli.

Bacitracin is a neutral, filtrable, water-soluble substance that is relatively heat stable. The drug does not penetrate or hemolyze red blood cells and does not produce significant changes in the blood of dogs and monkeys. It causes tubular necrosis in the renal tubules of mice after large intraperitoneal doses² and produces albuminuria and glycosuria in monkeys³ and man.⁴ Pulaski and Connell,⁴ in a study of 26 patients with surgical infections treated systemically with bacitracin noted urinary manifestations of renal toxicity in 24 of the cases. Thus far systemic administration has been limited or contraindicated, and its greatest use has been local.

Since the drug was obtained from culture filtrates of the Tracy strain of *Bacillus subtilis*, Scudi et al.³ attempted to determine whether or not crude bacitracin was anaphylactogenic. They did not observe any evidence of anaphylaxis in sensitized guinea pigs. However, in their early report² they stated that "concentra-

tes of the antibiotic contained a minute amount of an histamine-like substance."

Bacitracin is inactivated by hydrogen peroxide, by salts of the heavy metals low in the electromotive series, and by sodium thiosulfate.⁵ It is not inactivated by pus, blood or plasma.

The microorganisms most commonly isolated in impetigo, ecthyma, folliculitis, and infectious eczematoid dermatitis are the *Staphylococcus albus*, *Staphylococcus aureus* and *Streptococcus pyogenes* which are susceptible to the inhibitory action of this newer antibiotic. The efficacy of bacitracin in these conditions has been substantiated clinically by earlier reports^{6, 7} and we wish to supplement the available information with our clinical studies in the office treatment of 50 cases of pyogenic dermatoses.

METHOD OF ADMINISTRATION

Because the drug is inactivated by hydrogen peroxide and potassium permanganate and is more stable in an acid medium, the patients were instructed to soften and remove the crusts of impetigo and ecthyma by soaking with absorbent cotton wet with boric acid solution. After this the drug in ointment form was rubbed into the lesions. The ointment used is available as Bacitracin, 500 units per gram, in a water-miscible base that melts at body temperature and allows the water-soluble antibiotic to come into close contact with the organisms.

In cases in which the dermatosis was associated with pronounced weeping, the bacitracin ointment was combined with starch and zinc oxide to form a paste. Since the zinc ions are high in the electromotive series, zinc does not inactivate bacitracin. The patients were instructed to use boric acid compresses before applying the paste 3 times a day.

the response to bacitracin ointment was prompt and unmistakable.

The results were impressive, almost dramatic, in impetigo contagiosa and ecthyma when the infection itself was relatively superficial and no predisposing or underlying condition (stasis, seborrhea, or acute dermatitis) was acting as a complicating factor.

TABLE 1
Results of Treatment

DISEASES	NUMBER OF CASES	CURED*	IMPROVED†	IN-EFFECTIVE‡	REACTION TO MEDICATION
Impetigo contagiosa	11	10	0	1	0
Ecthyma	9	9	0	0	0
Infectious eczematoid dermatitis	6	4	2	0	0
Folliculitis barbae	6	0	3	3	0
Secondary infection in:					
1. Seborrheic dermatitis	7	2	4	0	1 Eczematous contact-type dermatitis
2. Dermatitis venenata	5	4	0	0	1 Eczematous contact-type dermatitis
3. Stasis ulcer	2	0	2	0	0
4. Herpes simplex	1	1	0	0	0
5. Scabies	2	2	0	0	0
6. Stasis dermatitis	1	1	0	0	0
Total	50	33	11	4	2

* Cured—Unquestionable response with cure in 1 to 2 weeks.
† Improved—Unquestionable improvement in 1 to 2 weeks.
‡ Ineffective—No change.

RESULTS OF TREATMENT

In table 1 are tabulated the results with the criteria used. Nine of the patients had used penicillin ointment, sulfonamide ointment, or ammoniated mercury ointment before being treated with bacitracin ointment. In all of the 9 cases the infection was improved or cure effected according to the criteria established.

Four of the patients with impetigo contagiosa had received previous local therapy with penicillin or sulfonamide ointment without improvement, and in 2 of these patients there had developed an eczematous contact-type dermatitis from the former medication—another example of the high index of sensitization of penicillin and the sulfonamides. In all 4 cases

The results with local bacitracin were equally promising in secondary infections accompanying various dermatoses. It was in this group that 2 of the patients developed an unequivocal eczematous contact-type dermatitis from the medication. One of the patients was under treatment for a secondary infection accompanying a seborrheic dermatitis and the other for an infected dermatitis venenata. In the latter patch test with bacitracin ointment produced an erythematous-vesicular reaction in 18 hours, whereas the subsequent use of a water-miscible base similar to that containing the drug was negative. The former patient refused to be patch-tested.

In 3 of the 6 cases of folliculitis barbae the

infection was characterized by deep involvement of the follicles with perifollicular inflammation. As anticipated because of the deeper folliculitis, the drug was ineffective in these 3 cases. In 1 case the superficial perifollicular pustules were quickly eradicated, but a month later the lesions of the deeper folliculitis were essentially the same.

Although one of the advantages attributed to bacitracin is its low index of sensitization, especially in dermatoses with secondary infection, it is capable of producing sensitization as noted in 2 of our cases. As the use of bacitracin ointment becomes more widespread and the medication is used over long periods, it is expected that the percentage of reactions will increase proportionally.

SUMMARY

A recent antibiotic, bacitracin, is considered superior to the antiparasitic agents now available for pyogenic cutaneous infections. The results in the treatment of impetigo and ecthyma with bacitracin ointment were excellent, even dramatic on occasion. In secondary infection complicating various dermatoses bacitracin acts rapidly in eliminating the pyogenic infection.

Eczematous contact-type dermatitis occurred in 2 of 50 cases. Patch test after 18 hours was positive in 1 of these.

Forty-four of 50 cases of superficial pyogenic infections treated with bacitracin locally were definitely improved or cured in 1 to 2 weeks.

BIBLIOGRAPHY

1. JOHNSON, B. A., ANKER, H., AND MELENEY, F. L.: Bacitracin: new antibiotic produced by member of *B. subtilis* group. *Science*, 1945, **102**, 376.
2. SCUDI, J. V., AND ANTROPOL, W.: Some pharmacological characteristics of bacitracin. *Proc. Soc. Exper. Biol. & Med.*, 1947, **64**, 503.
3. SCUDI, J. V., CORET, I. A., AND ANTROPOL, W.: Some pharmacological characteristics of bacitracin; chronic toxicity studies of commercial bacitracin in dog and monkey. *Ibid.*, 1947, **66**, 558.
4. PULASKI, E. J., AND CONNELL, J. F.: Bacitracin in surgical wound infections. *Bull. U. S. Army M. Dept.*, 1949, **9**, 141.
5. ANKER, H. S., JOHNSON, B. A., GOLDBERG, J., AND MELENEY, F. L.: Bacitracin: methods of production, concentration and partial purification with summary of chemical properties of crude bacitracin. *J. Bact.*, 1948, **55**, 249.
6. MELENEY, F. L., AND JOHNSON, B.: Bacitracin therapy; first 100 cases of surgical infections treated locally with antibiotic. *J.A.M.A.*, 1947, **133**, 675.
7. MILLER, J. L., SLATKIN, M. H., AND JOHNSON, B. A.: Local use of bacitracin. *J. Invest. Dermat.*, 1948, **10**, 179.

PATHOGENESIS AND THERAPY OF RADIATION ILLNESS^{*†}

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RADIATION illness in its broadest sense can be produced by all types of ionizing radiation. The type of radiation illness that will be considered today is the type that might be expected in man after an atomic bomb explosion, in air that is, the illness produced by a brief whole-body exposure to penetrating radiation.

Exposure of the body to these radiations produces ionization within the tissues. There is disagreement as to the chemical action of radiation, its initial effect on protoplasm, and the sequence of effects.

I consider the illness produced by whole-body exposure to radiation as being somewhat different from that produced by sectional exposure, as occurs with X-ray therapy of cancer, because in the former all tissues are injured to some extent and may not be able to react to injury in the orthodox fashion, and in the latter the X-ray injury is localized and the rest of the body may be able to react to the injury along the usual adaptive and defensive lines. With this one difference the various syndromes of radiation injury are similar in pathogenesis. All are initiated by a similar protoplasmic injury, the subsequent course depending upon the severity of the initial damage, which in turn is a function of the dose and the mass of tissue and various organs that are affected.

^{*} Read at the Regional Meeting of the American College of Physicians in Washington, D. C., February 19, 1949.

[†] The opinions or assertions contained herein are the private ones of the author and are not to be construed as official or reflecting the views of the Navy Department or the Naval Service at large.

Numerous theories have been proposed to explain the biologic effects of ionizing radiations. It is outside the scope of this paper to discuss each theory. For our purposes the syndrome of whole body radiation illness may be considered as being initiated and continued by one or more of the following mechanisms:

1. Enzyme inhibition, particularly SH*enzymes¹
2. Alterations in osmotic properties and cell permeability²
3. Generalized protein denaturation¹
4. Intoxication by histamine-like compounds that are reputedly liberated as a result of irradiation.³

It is not possible at the present time to determine the relative importance of these theories in the production of radiation illness. Regardless of the means by which the syndrome is initiated, a consistent sequence of events follows that have been variously ascribed to one or more of the following:

1. Precipitation of adrenal cortical insufficiency³
2. Development of the adaptation syndrome³
3. Widespread necrosis of various tissues with a concomitant intoxication
4. Bacterial invasion as a result of a profound granulocytopenia.

Again the relative importance of these phenomena is not established.

In a general sense there is a reciprocal relationship between the degree and the reversibility of the enzyme inhibition, protein de-

^{*} Abbreviation for sulphydryl.

naturation, and the alterations in osmotic properties and cellular permeability. At the lower dose ranges the phenomena are apparently completely reversible, or, at least, almost complete repair occurs. At the higher dose ranges the phenomena become more apparent and less reversible, and concomitantly the per cent lethality of the increasing doses becomes greater until it reaches 100. As the dose of radiation becomes greater than the amount that kills 100 per cent of a given species the survival time after exposure becomes progressively shorter until a dose is reached whereby the animals will die while being irradiated. With mice this is in the vicinity of 32,000 r.⁴ These deaths may be preceded by convulsions or profound shock.

In respect to the necrosis of tissues that is produced by radiation, it is noteworthy that tissues possess different degrees of susceptibility. In general, tissues can be placed in the following order of increasing resistance to radiation: (1) lymphocytes, (2) erythroblasts, (3) gonads, (4) myeloblasts, (5) epithelium lining gastrointestinal crypts, (6) ectodermal structures, (7) mesenchymal structures, and (8) nervous tissue. The most sensitive tissues in general are characterized by cyclic or continuous cellular proliferation in order to meet the usual functional demands of the given system.

The degree of necrosis is a direct function of the dose. Lymphoid tissue is depleted of lymphocytes at low lethal doses. There is little demonstrable injury to reticulo-endothelial cells at very high doses.

Even though the mechanisms by which the radiation produces its effects are poorly known, the clinical picture was demonstrated clearly by the Japanese casualties.⁵ Concomitant with or shortly after the initial, diffuse, cellular injury is suffered, symptoms which we are prone to call toxic develop (nausea, vomiting, diarrhea, malaise, headache, anorexia, etc.).

These toxic symptoms usually subside within

24 to 48 hours. An asymptomatic period follows, which has been termed the latent period. This period becomes shorter with the higher doses and may disappear with massive doses. During this period only the hematologic signs of leukopenia, thrombopenia, and a slowly progressive anemia are easily detectible. However, during this latent period a series of physiopathologic events are taking place that may, as mentioned earlier, involve adrenal function, adaptation syndrome, intoxication to histamine-like substances, and in the later part bacterial invasion. At any rate, the latent asymptomatic period is terminated with a recrudescence of symptoms and the development of the delayed effects. The latter are well known and better understood.

The panleukopenia is severe. In the granulopenic state, necrotizing, nonpurulent reactions develop at the site of infections. In the Japanese these were most prominent 3 to 5 weeks after the bombing. Hemorrhagic manifestations may appear. These were most prevalent in the Japanese about 4 to 6 weeks afterward.⁵

The nature of the hemorrhagic syndrome has been extensively studied in animals. Various workers have ascribed it largely to a thrombopenia,⁶ vascular injury,⁷ or heparinemia.⁸

Following whole-body irradiation to amounts that will produce a hemorrhagic syndrome, increased capillary fragility is a fairly consistent finding in most species, as is a progressive thrombopenia. Clotting defects occur, and in some species after exposure to high lethal doses of radiation blood coagulation is prolonged and heparin-like substances can be detected by indirect means.⁹ In the consideration of all hemorrhagic syndromes it is worthwhile considering the natural defenses against hemorrhage, (1) integrity of the vascular bed, (2) platelets, and (3) coagulability of the blood. There must first be a loss of the integrity of the vascular bed. Platelets are well able to control bleeding from the capillaries and from small

rents in the veins. Blood coagulation and clot retraction are only essential to control bleeding from the arterial side. In keeping, then, with the general knowledge about hemostasis one is inclined to consider the primary cause of hemorrhage in the course of radiation illness as being due to injury to the vascular bed. This comes about in two ways. One apparently is direct radiation injury to the capillaries resulting in an increased capillary fragility so that the capillary bed cannot withstand the trauma of ordinary existence. When thrombopenia becomes severe, purpura then is marked. The other is ulcerations that develop, and these in many cases erode into blood vessels. If there is thrombopenia and/or a clotting defect, the hemorrhage may be uncontrollable and death from exsanguination may result. This has been frequently observed in laboratory animals. In radiation hemorrhage it is my opinion that widespread capillary damage and ulcerations into blood vessels are the factors that precipitate hemorrhage and that the thrombopenia and clotting defects are of secondary importance.

The anemia is due to partial or complete cessation of blood production, increased blood destruction, infection and hemorrhage.¹⁰

Marked weight loss occurs within a few days as a result of vomiting, diarrhea, anorexia, and a negative nitrogen balance. Extensive necrosis, ulceration, and edema of the bowel probably contribute to the malnutrition.¹⁰

The therapeutic problems concerned with this illness are many. The first and most important from the standpoint of atomic warfare is the selection of those casualties that have some chance of survival. It will only be a waste of time, personnel, and therapeutic agents to treat those who have received an absolutely fatal dose of radiation plus their burns and traumatic injuries. Casualty selection will have to be on the basis of some satisfactory casualty dosimeter yet to be developed.¹⁰

The specific therapeutic problems are:

1. An attempt to reverse enzyme inhibition

by use of sulfhydryl compounds (BAL, glutathione)

2. Neutralization of "toxins," e.g., histamine by antihistaminics

3. Replacement therapy with adrenal hormones.

4. Maintenance of water and electrolyte metabolism.

5. Prophylaxis and treatment of infections in the presence of a granulocytopenia

6. Prevention and therapy of anemia

7. Treatment of hemorrhagic tendencies

8. Attempt to prevent and remedy the marked loss of tissue and negative nitrogen balance.

The first 3 problems are strictly in the experimental stage, and there is no conclusive evidence that any of these measures will improve the survival of irradiated men or animals.

The last 5 therapeutic problems are common to many clinical syndromes, and the management rests on well founded therapeutic principles. For example, the importance and necessity of maintaining the water and electrolyte balance need no elaboration. However, care should be used in giving sodium because of the tendency of irradiated casualties to become edematous. The prophylaxis and control of infections may be possible by the use of a combination of antibiotics that have a wide bacterial and virus spectrum. A combination of parenteral penicillin and oral aureomycin or chloromycetin may suffice to control infections until there is a return of hematopoietic activity. In order to prevent anemia a volume of blood equal to the normal destruction* will be necessary as long as erythropoiesis is impaired or absent. In addition, increased red blood cell destruction, infection and hemorrhage will increase the need for blood transfusions. The actual amounts needed will vary with each patient.

The hemorrhagic tendencies may be benefited by rutin and similar drugs, but the animal experimental work is conflicting. Dogs and guinea

* 0.83 per cent of the red blood cells are destroyed per day.

pigs were benefited.^{7, 11} Rats¹² and mice¹³ were not benefited. Transfusions may help a little in animals.¹⁴ Protamine sulfate intravenously as a 1 per cent solution will neutralize heparin if a heparinemia should occur. The marked wasting, negative nitrogen balance, and tendency to become edematous can in part be combated by blood transfusions and infusions of salt-poor human albumin, plasma, and amino acids.

In the therapy of this illness it is apparent that no rigid schedule can be drawn up. The requirements of each patient will be different and will vary with the amount of radiation received. Unfortunately, specific therapy has not yet been developed, and the probability of any one drug being of much value in an illness so complex seems rather remote.

In conclusion, it seems quite obvious that there still remains a great challenge to the medical profession in planning and preparation for an atomic disaster even though little can be done for radiation illness as such. The fact remains that trauma and burns extend beyond the range of lethal radiation and that a tremendous amount can be done for those who have not received lethal doses of radiation but suffer only from burns and trauma, if adequate plans are formulated now for such care.

BIBLIOGRAPHY

1. BARRON, E. S. G.: Some aspects of biological action of radiation. U. S. Atomic Energy Commission, 1946, MDDC-484.
2. FAILLA, G.: Theory of biological action of ionizing radiations. Cancer Probl., Symposium, 1937, pp. 202-14; Science, suppl., 1937, 85.
3. ELLINGER, F.: Radiology, 1948, 51, 394.
4. CRONKITE, E. P., AND OTHERS: Determination of lethality of total body X-ray irradiation in mice (in preparation).
5. LE ROY, G. W.: J.A.M.A., 1947, 134, 1143.
6. SHOUSE, S. S., WARREN, S. L., AND WHIPPLE, G. H.: J. Exper. Med., 1931, 53, 421.
7. REKERS, P. E., AND FIELD, J. B.: Science, 1948, 107, 16.
8. ALLEN, J. G., AND OTHERS: J. Exper. Med., 1948, 87, 71.
9. CRONKITE, E. P.: Hemorrhagic syndrome of acute ionizing radiation illness produced in goats and swine by exposure to atomic bomb explosions at Bikini, 1946, to be published.
10. CRONKITE, E. P., AND CHAPMAN, W. H.: Mil. Surgeon, 1949, 104, 7.
11. CLARK, W. G., UNCAPHER, R. P., AND JORDAN, M. L.: Science, 1948, 108, 629.
12. FIELD, J., AND REKERS, P.: Ionizing radiation disease and study of protective nature of flavonones. U. S. Atomic Energy Commission, 1948, MDDC-1672.
13. CRONKITE, E. P., AND OTHERS: Failure of rutin to decrease mortality of acute ionizing radiation illness in mice. Proc. Soc. Exper. Biol. & Med., in press.
14. CRONKITE, E. P.: Clinical manifestations of acute radiation illness produced in goats by exposure to atomic bomb, Test Able, Bikini, 1946, with comments on therapy. Nav. M. Bull., in press.

FRACTURES OF THE NECK OF THE FEMUR DUE TO OSTEOPOROSIS

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T HAS been a belief for some time that fractures of the neck of the femur are not, in general, caused by violence, but occur because of the loss of normal strength in the bone itself. It is thought that the patient, instead of actually falling and breaking the hip, breaks the hip and then falls. While this may not be true in all instances, such as intertrochanteric fractures, this is surely most often the case in regard to fractures in the neck of the femur, or the so-called cervical fractures. To date we, as orthopedic surgeons, have made very little study of this basic concept of such fractures. We are not endocrinologists and feel that that field of bone metabolism belongs to endocrinologists and physiologists. Consequently the internist should, with the orthopedic surgeon, care for the individual who has a bone dyscrasia. However, it is just as much the job of the orthopedic surgeon to be well acquainted with bone physiology as the physiologist. Unfortunately, very little work has been done on the relationship of senile osteoporosis to fractures of the neck of the femur, and little has been written on the subject. After discussing this subject with Dr. Fuller Albright of Boston and Dr. Ethel Sherman, University of Chicago, Billings Hospital, I have come to believe that the subject should be discussed in order to stimulate research work for the purpose of determining the cause of fracture of the neck of the femur and the treatment to insure adequate healing. These fractures should heal in a larger per cent of cases and should not develop the later sequelae which are so common in fractured necks of the femur. For example, many hips apparently

heal nicely, but 6 months to 2 years later are found to have a nonunion, aseptic necrosis, death of the head of the femur, or extreme arthritis. Any one of these conditions gives a very disabled hip which must end up with either cup arthroplasty or an arthrodesis of the hip joint.

Osteomalacia is the demineralization of bone. Osteoporosis is the failure of the osteoblasts to produce bone matrix with consequent failure in the normal deposition of the calcium-phosphorus complex in the bone matrix. It is difficult to review the history of osteoporosis. There are not many articles on the subject. Those that have been written are a bit confusing and often do not include the contemporary ideas of the fellow research workers. Some of the articles are most voluminous in the explanation of the causes of the disease. An editorial¹ appeared in the *Journal of the American Medical Association* in 1939, discussing senile osteoporosis as a demineralization of bone due to poor eating habits of the aged and not to any endocrine disease. It was stated that the 0.7 gram of daily calcium requirement could not be met by our civilized adult average diet. We have gone overboard in doing research work on our children's diet, but adult diets have been grossly neglected. The cause of the osteoporosis was thought to be dietary, and apparently at that time no other cause had been reported in the literature. However, when that editorial was published I was visiting Dr. Albright in Boston; he was at that time working on senile osteoporosis and felt that the absence of the gonadal hormone was the cause. In 1940 Dr.

Albright² read a paper before the Association of American Physicians describing osteoporosis as a failure of the osteoblasts to lay down an organic bone matrix.

If one will recall that living bone is an extremely active substance and that new bone is constantly being rebuilt into its structure, as well as old bone removed, and that the cycle is a continuous one, one can imagine what happens in these various diseases that affect the bone structure itself. In 1939 Dr. Albright was not sure that postmenopausal osteoporosis was a true atrophy of the bone matrix or a disorder of calcium metabolism. But 3 years later his articles appeared, definitely showing that it is a bone matrix atrophy. He separated, at that time, senile osteoporosis from diseases such as osteomalacia, which is a failure of the calcium-phosphorus carbonate complex to be deposited in the matrix after it has been formed. Osteoporosis is associated with too little bone matrix deposition, whereas such other diseases as osteitis fibrosa cystica are caused by too rapid bone resorption.

In 1941 Black and Ghormley³ reported on senile osteoporosis of the spinal column in 18 cases treated for a period of 29 months with calcium and vitamin D. They could not show any recalcification occurring after their long calcium and vitamin D therapeutics. They stated that the disease occurred 4 times as often in women as in men. They gave a beautiful description of the symptomology of the disease, which I shall repeat. At 49 years of age the first symptoms appear, and these are usually weakness, easy fatigability, and dull ache in the lower back. This may last for a period of many years. Then, after stooping or suddenly lifting something there is a severe pain in the back and X-ray films will show a beginning fragmentation, Schmorl's rupture of the bodies, or fractures of the vertebrae. There develops a round-back deformity and poor posture, and the patients are usually quite thin. Roentgenograms show a gross loss of bone calcium

with bone atrophy, with Schmorl's ruptures into the bodies of the vertebrae and bulging of the intervertebral discs into the bodies, and cupping of the vertebral bodies from pressure of the intervertebral discs. The bony trabeculae become quite thin and clearcut until they finally collapse.

That same year a paper was published by Wolfson,⁴ stating that osteoporotic lesions of the spine could be very definitely differentiated from metastatic lesions of spine. He felt that the sedimentation rate would be elevated and that the serum phosphorus would be elevated in metastatic lesions. The type of pain would be localized to one vertebra instead of many vertebrae. In 1941 Nathanson⁵ reported a beautiful series of X-ray films describing the compression fractures, the fragmentation of the bodies, the cupping of the vertebral bodies, and the Schmorl's ruptures of the vertebral bodies from osteoporosis.

Albright, Smith and Richardson⁶ reported also in 1941 a series of 42 cases of osteoporosis and described the lesions as postmenopausal atrophy of the bone matrix. Of their 42 cases, 40 were women and 2 were men. Ten of the women had an artificial menopause. The bone atrophy was most prominent in the spine and pelvis and only minimally present in the other long bones. They also noticed for the first time the tendency of other tissues to atrophy. The remainder of the articles that I am going to mention are combinations of the articles by Albright and by his associates, primarily Reifenshtein.⁷ But I would like to note that there was a paper published by Burrows and Graham⁸ in 1945 on spinal osteoporosis, which, I believe, completely missed the point. It is interesting that papers could be published with so little apparent understanding of the disease. They quote almost every author except Dr. Albright and his associates, who have done 90 per cent of the research work on senile osteoporosis. In fact, they have done more work on bone metabolism than any other group. In their

paper Burrows and Graham tried to show, but most unsuccessfully, that the diet of rationed people in Europe during and after the War seemed to be the cause of osteoporosis. I believe that what he was really talking about was osteomalacia, which he did not seem to differentiate from osteoporosis.

To repeat, osteoporosis is a failure of the osteoblast to lay down organic matrix. Osteomalacia is a failure of calcium to be deposited in the matrix. Senile osteoporosis or postmenopausal osteoporosis occurs only after the climacteric in the male and in the female, whether or not it be artificial. Estrin therapy will increase the density of bone by stimulating the osteoblasts to lay down bone matrix. The same therapy, after 20 days, will result in a positive balance of calcium and phosphorus in the blood, and this effect will be continued up to even 100 days after the cessation of estrogenic therapy. In order to obtain what is a true calcium and phosphorus balance it is necessary to do a complete calcium, phosphorus, and nitrogen study on the urine and the stool over a period of at least a week. This means a tremendous amount of laboratory work and naturally has reduced the number of cases studied.

Associated with osteoporosis are the following conditions: (1) diffuse atrophy; (2) old age of bone and other tissues; and (3) malnutrition, particularly in relation to the protein requirement. The bone matrix will be depleted whenever protein intake is reduced. It is true in these age groups that many people do not have teeth to eat with; and since they are often living alone and do not have the proper stimulation to eat a well balanced diet, they consume negative protein diet. With a loss of normal gonadal function this will bring about senile osteoporosis. It is now believed that there are at least 2 adrenal cortical hormones, the sugar or S hormone and the nitrogen or N hormone. In Cushing's syndrome there is osteoporosis because anabolism of the bone matrix is inhibited,

but it is thought that this is due to the excess of adrenal cortex hormone S rather than N. I think it is well to mention here, in reviewing Reifstein's article⁹ on the metabolic effects of steroids, that he feels that there is such a condition as idiopathic osteoporosis that is not due to postmenopausal lesions or adrenal cortex lesions, but to other causes as yet unknown.

Studies of the treatment of postmenopausal or senile osteoporosis with estrogenic substances to stimulate the osteoblasts to produce bone matrix have shown that progynon B, stilbestrol, theelin in oil, or premarin, all produce the same effect. Blood sera studies, when progynon B therapy is used in postmenopausal osteoporosis, show a fall of the high serum phosphorus level. On improvement there is an increase in nitrogen balance, a decrease in the urinary and fecal calcium excretion, a decrease in the urinary phosphorus excretion, no rise in the serum phosphatase level, a fall in the serum calcium level, and a tendency to hold extracellular fluid in the body.

Androgens have the same effect as estrogens, except that the androgens cause a decrease in urinary nitrogen excretion. This is especially true in Cushing's syndrome. The production of bone matrix is undoubtedly influenced by the availability of certain nitrogenous substances. The height of the serum albumin is an important factor, therefore, to the production of bone matrix. Hence, Albright feels that the following influence osteoblastic activity: (1) steroidal hormones, (2) mechanical stresses and strain, and (3) nitrogenous "building blocks." The adrenal cortical nitrogen hormone may or may not stop or start with the gonadal hormone. By that they mean that the adrenal cortical nitrogen hormone is produced about the same time as puberty but that at the menopause it may or may not continue to be produced and the gonadal hormone will cease.

Only 1 paper in the literature that I could find suggested that osteoporosis might be a

cause for fractured hips, and that was a brief suggestion in a paper by Ghormley¹⁰ in 1937. There was no question that postmenopausal osteoporosis produced the fractures of the spine and pelvis.

DISCUSSION OF CASES

I have treated 49 patients with senile osteoporosis during the last 10 years. Some of these have been treated for 6 years. Two patients developed the disease after artificial menopause; 1 patient was only 23 years of age, and the other was 39 years of age.

The symptomatology is just as described by Ghormley, namely, dull backache, fatigue, and general feeling of inability to accomplish the daily work. Sometimes the patients have enough backache so that they seek medical care before the osteoporosis has developed sufficiently to become evident in roentgenograms. They have the poor posture from fatigue but not the round-back deformity that comes with the collapse of the vertebrae. The pain and tenderness are not acute and there is no marked muscle spasm upon motion of the back. In fact, in those that show no atrophy in the X-ray films it is impossible, I believe, to make a diagnosis of senile osteoporosis. These people are usually 59 to 70 years of age, and the only 2 male patients I have had have been in the late 70's and in the 80's.

When it takes a loss of 40 per cent of the calcium from the bony structure with a concomitant loss of the bony matrix in order for the diagnosis to be made by X-ray examination, there must be a tremendous loss before therapy can be begun. With new bone matrix to be found and then to be deposited, it takes a period of 6 months to 6 years before the calcium is sufficiently replaced in the bone to make itself evident in the X-ray films.

Following Albright's advice, in 1941 I began treating senile osteoporosis by recommending the patient's physician to prescribe a high calcium, adequate vitamin diet and estrogenic

therapy. I have now 2 patients that have used estrogenic therapy constantly since 1942 and who show beginning recalcification of the bone. Both of these patients are in their late 70's. In most instances the prewar patients either have not been followed or did not keep up the treatment throughout the War. Since Reifenstein and Albright⁷ decided in 1944 that the adrenal cortical N hormone, which is not available, was the necessary missing factor to recalcification due to its effect on the replacement of the bone matrix, therapy has been outlined using nitrogen replacement in addition to gonadal therapy. It was found out very quickly that it was impossible to get these patients to eat a sufficient amount of meat to do them any good, and various methods of giving them protein have been devised. There are many protein digests on the market, such as Nutragest, Delcoa and Amino-vibex, that give large amounts of protein by mouth.

Early diagnosis still remains very difficult. I have 1 patient whose X-ray films in February 1946 revealed no evidence of osteoporosis. At that time I was looking for the disease but could not make the diagnosis. Her complaints were very vague and were mostly associated with a recent automobile accident but with no fractures. However, just 6 months later, August 1946, this patient was leaning over in her garden and felt something snap in the back and had severe pain. She was put to bed for a period of 2 weeks with severe, acute low backache and then was allowed up. After she had been walking around for 4 or 5 days she suddenly felt a snap in her hip and fell. In the hospital, X-ray films of the hip and of the spine revealed extreme osteoporosis with collapse of the first lumbar vertebra and a fracture of the osteoporotic neck of the femur (figs. 1 and 2). It is my belief now that if this patient had been treated extensively with estrogenic and nitrogen therapy these fractures could have been avoided. I do not have a long series of fractured hips to present. I have only a series of 16 hips treated with

estrogenic therapy following fracture of the neck of the femur. It is difficult to get a long series of patients with the disease as demonstrated by extensive bone atrophy. I cannot emphatically state that theelin and nitrogen therapy have produced union and prevented complications in these cases. But I believe that, if it had not been for this therapy, my percentage of bone unions would not be so high. Thirteen patients healed thoroughly; they have remained healed and have not developed any nonunion, aseptic necrosis, death of the head,

had healed. Six months later she had more fractured vertebrae and a refracture of the neck of the femur. I believe it would take many years before a sufficient number of cases can be



FIG. 1. Fracture of the first lumbar vertebra of an osteoporotic spine.

or osteoarthritis. Of my 3 failures 1 was due to insufficient fixation at the time of nailing, 1 to the fact that the fracture involved the head causing destruction of a portion of the head, and 1 to the fact that the patient refused to follow her estrogen régime after the fracture



FIG. 2. Fracture of the neck of the left femur of patient with osteoporosis.

collected by any individual or group of individuals to state definitely the value of estrogenic and nitrogen therapy in fractures of the neck of the femur. But this percentage without the common complications is definitely high.

In reviewing a series of 150 cases of Albright, over 100 cases reported in a personal communication from Dr. Sherman of Chicago, and the cases that I have seen, I find that no patient who has had estrogen or androgen therapy for a period of at least 6 months has had a fracture of the neck of the femur. Those that have had other fractures of the spine are few and far between, and it appears that in almost every instance those that have had such fractures have not been on a rigid régime but have stopped taking the hormone for one reason or another. Since we have not worked out a satisfactory method for recalcifying the bones completely, it is apparently necessary to keep the patients on a high calcium, high protein, adequate estrogen and/or androgen régime with vitamin therapy for the rest of their lives, once they have developed the disease. When we have

worked the methods out that will definitely cause recalcification as shown by X-ray films, possibly the therapy might be discontinued. But until then we must continue it as attested by the 2 patients who stopped the therapy and then developed more fractures. One patient in this series had such severe osteoporosis that she developed severe bowing of both tibiae with beginning fragmentation of the medial tibial condyle. This, however, was stopped with the aid of a brace and estrogen therapy. It was possible at the end of 6 months to remove the brace and to continue with only the estrogen-nitrogen therapy without any further bowing or evidence of fracture or collapse of the internal tibial condyle.

METHOD OF CARE OF FEMORAL NECK FRACTURES

These patients are usually thin and tired. They are poor surgical risks because of their age and deficiency of protein. It is necessary to put them in positive nitrogen balance before surgery and keep them there as long as they live. According to the research work I have recounted in this paper, these patients would not have had their fractured hips if they had had sufficient protein in their diet and a minimal amount of gonadotropic hormone possibly added. Before operation they are given intravenous protein hydrolysate and theelin in oil in large doses. For general therapeutic reasons, they are given preoperative glucose for 3 to 4 days. They are made comfortable in Fowler's position with 25 degrees flexion of the knees and hips and light traction to the injured leg with sandbags to either side of the ankle. The reduction and fixation of the hip are fairly simple now. I usually use a Smith-Petersen-Johannson modified nail. With a fracture table and bi-plane X-ray film the procedure usually requires about 40 minutes of anesthesia. An accurate reduction with the head in a slightly overcorrected or valgus position with good fixation with the nail, lag-screw or whatever is used for internal fixation is desirable.

Just as important as the operative care and mechanical fixation is the aftercare. The bones must be given time to form new matrix and the matrix given an opportunity to calcify. I have had patients with this disease, but without specific therapy they fracture their ribs and other bones while lying in bed. As stated, the only method that we know of so far to produce new bone matrix and to supply an adequate amount of calcium to these postmenopausal osteoporotic bones is by estrogenic and androgenic therapy coupled with a positive nitrogen balance. Milk seems to be the most easily used source of calcium, and a small additional amount of vitamin D conveys this calcium more easily from the intestinal tract into the blood stream.

Of course, all the other factors in bone healing of fractures come into play as well at the fracture site itself. A new circulation to the head has to be reestablished across the fracture line or else the head dies and nonunion results. The fracture does not heal by callus formation but by the growth of trabeculae across the fracture site into the head. The trabeculae are made up entirely of bone matrix. When the trabeculae become apparent in X-ray films they are already partially or completely calcified. These patients must also be given adequate rest. Since it is known that other tissues atrophy with this disease, and since the most prominent symptom these patients have before fractures occur is fatigue, rest becomes of paramount importance. We know that with forced intravenous nitrogen therapy, it takes a very minimum of 6 months before recalcification of the bones is evident in the X-ray films. Most roentgenologists will not hazard a guess as to solid union of femoral cervical fractures until they can see complete trabecular formation, which in most cases is a year after the fracture has occurred. Because of these things these patients should be kept in bed for 3 or 4 months and allowed only partial weight-bearing until 6 months have elapsed after the fracture.

Senile osteoporosis is more common by far in women than in men, and it seems to be associated with the inability to form a bone matrix due to the lack of two hormones, both the gonadal and the adrenal cortical N hormones. If the adrenal cortical N hormone continues to be produced, patients do not seem to develop senile osteoporosis, but when both that and the gonadal hormones are absent the disease occurs. It is necessary to substitute both therapeutic hormonal agents in order to bring about recalcification of the bone. Since the use of the gonadal hormones causes no harm and, according to Albright, does not produce cancer in aged females but instead protects against fractured spine and fractured hips, their use in small doses may be worth while. Estrogenic therapy, protein replacement, vitamin D administration, and an adequate supply of calcium are essential in the healing of these fractures once they occur, whether in the spine or the hip. This therapy should not be discontinued after union of the fracture has taken place since the disease may recur and the fracture recur in that or the other hip, but should be kept up throughout life.

SUMMARY

Fractures of the neck of the femur and spine in old people are probably due more to osteoporosis than trauma. Osteoporosis is the failure of osteoblasts to produce bone matrix with the result that calcium-phosphorus deposition fails.

In the therapy the use of estrogenic or androgenic hormone, reestablishment of nitrogen balance, an adequate supply of calcium, and administration of vitamin D are of the utmost importance in addition to rest and the usual orthopedic measures.

BIBLIOGRAPHY

1. Editorial: Senile osteoporosis. *J.A.M.A.*, 1939, **112**, 434.
2. ALBRIGHT, F., BLOOMBERG, E., AND SMITH, P. H.: Postmenopausal osteoporosis. *Tr. A. Am. Physicians*, 1940, **55**, 298.
3. BLACK, J. R., GHORMLEY, R. K., AND CAMP, J. D.: Senile osteoporosis of spinal column. *J.A.M.A.*, 1941, **117**, 2144.
4. WOLFSON, S. A., REZNICK, S., AND GUNTHER, L.: Early diagnosis of malignant metastases to spine; clinical syndrome. *Ibid.*, 1941, **116**, 1044.
5. NATHANSON, L., AND LEWITAN, A.: Deformities and fractures of vertebrae as result of senile and presenile osteoporosis. *Am. J. Roentgenol.*, 1941, **46**, 197.
6. ALBRIGHT, F., SMITH, P. H., AND RICHARDSON, A. M.: Postmenopausal osteoporosis; its clinical features. *J.A.M.A.*, 1941, **116**, 2465.
7. (a) REIFENSTEIN, E. C., JR.: Effect of testosterone compounds upon nitrogen balance and creatine excretion in patients with thyrotoxicosis. *Bull. New England M. Center*, 1944, **6**, 256.
(b) —, ALBRIGHT, F., AND WELLS, S. L.: Accumulation interpretation, and presentation of data pertaining to metabolic balances, notably those of calcium, phosphorus, and nitrogen. *J. Clin. Endocrinol.*, 1945, **5**, 367; correction, 1946, **6**, 232.
8. BURROWS, H. J., AND GRAHAM, G.: Spinal osteoporosis of unknown origin. *Quart. J. Med.*, 1945, **14**, 147.
9. REIFENSTEIN, E. C., JR., AND ALBRIGHT, F.: Metabolic effects of steroid hormones in osteoporosis. *J. Clin. Investigation*, 1947, **26**, 24.
10. GHORMLEY, R. K., SUTHERLAND, C. G., AND POLLOCK, G. A.: Pathologic fractures. *J.A.M.A.*, 1937, **109**, 2111.

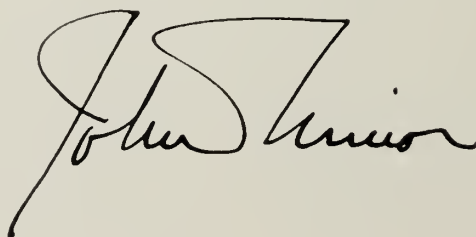
President's Page

CARE OF THE PATIENT AT ALL LEVELS

A subject which is of great interest and importance to all doctors, and yet one which so far they have seemed unable to do much about is the nursing situation in the hospital and the home. It is evident to every busy doctor that the amount of available nursing care is often grossly inadequate. A high proportion of leading physicians question the advisability of a program for higher education of nurses when the effort is made to extend it to all registered nursing schools, although they fully recognize its importance in the training of leaders in the nursing profession.

There is a crying need for women of high intelligence and training dedicated to the basic ideals of Florence Nightingale. There is also a crying need for adequately trained, devoted women of less extensive training who can minister to the suffering sick and be, as they so often are, an essential right hand to the doctor. One can sympathize with the Nursing Association's desire to foster higher educational standards, but this must not be at the price of making it difficult or impossible to obtain satisfactory nursing care for the individual patient. The two ideas are not mutually exclusive, and as with the doctor, so with the nurse, the sick patient who needs our help is our primary concern.

It is no doubt true that the fine women who have headed the modern educational movement in nursing have thought of these things, but one cannot escape the conclusion that the central objective has been a little forgotten in the enthusiasm of turning out, amid serious economic contradictions, the highly trained personnel which they aim at. An organic coördination of thought and effort between the medical and nursing professions directed at this great end, i.e., the care of the patient at all levels, might well bring a fairly prompt solution. At the present time such coördination is the exception rather than the rule.

A handwritten signature in cursive script, reading "John D. Minor". The signature is written in dark ink and is positioned at the bottom right of the page.

Editorials

COMMUNITY DIAGNOSTIC CLINICS*

The political pot boils when it comes to bureaucrats and politicians deciding what is best for the American public, without very much understanding, if any, of the necessities for various classes of people, or at least various classes of patients, on the medical front. On the other hand, I feel that we as a profession have been quite negligent in setting up some sort of plan which would offer people in moderate circumstances the advantages of what we know is good medicine. We do not want to interfere with the private practice of medicine or the free choice of physicians. Neither do we want bureaucratic control of medicine.

Anyone who knows anything about federal government knows that there are rules and regulations and red tape in almost any large bureau. I think from experience that rules and regulations are necessary, but too often they lead to confusion.

Besides that, a very large number of the population do not want to be considered as charity. They are self-respecting American citizens whose earnings are adequate to care for their families under ordinary conditions. No doubt, we all would like to be rich but all are not going to be rich. Despite that, when we get sick we want good medical care; we want someone to lean on, someone that we trust. We want to be able to choose those people.

Some of us probably want green pills with pink fringe which will make us well by tomorrow morning without any effort on our part; that is

a natural human reaction. Most people give little or no thought to their health while they have it but they want some marvelous doctor to give it back to them quickly when they lose it. There is a certain minority which screams for some Utopia, and for some miracle that will make them well by tomorrow morning without very much effort on their part, and they are perfectly willing to let somebody else pay for it.

In my opinion, after practicing medicine for forty years, that is not what most of the people in this country want. They do want good, sound medical judgment rendered by men whom they like and trust. They do not want to sit or stand in line to have a prescription passed out to them, or to have a paper filled out certifying that they are unable to work and then have to go through a bureaucratic régime to try to collect the money which will indemnify them for that loss of time.

Some time ago I prepared a plan dealing with Nation-wide medical care which takes into consideration only examination and diagnosis to be furnished locally under the direction of a body of county and state officials; the local board to be made up of those in the community best qualified to serve on such a board, including representation from the medical profession. This plan was outlined on the principle that everything should be locally controlled, and the community would be able to set up its own rules to determine those entitled to receive free examination, those who should pay part of the costs, and those who should pay full costs.

It is my opinion that most illnesses could be

* This is the thirty-second in a series of guest editorials by well known physicians and laymen.

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of the Medical Society of the District of Columbia.

treated very successfully by the family physician. The family physician is one who has established relations with various families in the community and has satisfied their medical needs. But in some cases he finds it difficult to make a diagnosis because he is not equipped in his office to carry out all the investigative procedures necessary in these days of modern medicine. He needs help. His patients cannot afford to be sent to the offices of a number of specialists, and yet he needs the opinion of specialists.

I see no reason in the world why the community, backed by the medical profession, should not set up one or more diagnostic clinics in connection with hospitals where this service could be rendered, and where thorough physical examinations could be accomplished. This would be in the line of preventive medicine rather than curative medicine. The services of these clinics would be available to any patient, whether he were referred by his doctor or went of his own volition. He could have a thorough examination and be furnished with a report which he could take to his doctor.

I have practiced medicine for 40 years and I believe that 99 per cent of the medical profession are honest and are practicing medicine because they want to help sick people get well. I know of no rich doctors who acquired their wealth from the practice of medicine alone, except a very few outstanding surgeons of the old days when general surgery was really general surgery and there was little competition for the few who had a very large reputation. After all, the doctor is entitled to reasonable compensation for his efforts. I know of no class of men which gives as much and as freely of its time and energy to the people in general as does the medical profession.

I am personally fed up with hearing the medical profession damned because of the ineffectiveness and the questionable methods used by a very few. The trouble, of course, is that the men who are busy caring for patients and who

are interested only in their profession have never paid any attention to politics or to the effect of the small vocal minority on their relation with the people as a whole. The average patient adores his doctor and believes in him and has a right to believe in him. There are a few who would damn anything, including the doctor, and it is these people in many instances who raise all the fuss.

However, the medical profession should, in my opinion, begin to set up in their communities diagnostic facilities so that people can have thorough examinations made at a cost which is within their means. Their health should be protected. That is one of our jobs. If the medical profession does not do this, a bureaucracy will be set up in an attempt to force us to do it. Slave labor has never been effective and it never will be effective with the medical profession. However, it should not be necessary to even suggest such a thing to a group of men who are interested in doing exactly what the general public wants them to do now, and that is give service.

If the hospitals and the clinics knew in advance that any deficit in operating expenses would be made up by a grant-in-aid, say, every three months or so, they would be in a position to do a lot of work that they cannot do now due to lack of funds. I see no reason why this cannot be done through grants-in-aid from the Federal Government, state government, local government and local charities. It is just a question of whether the medical profession wants to get behind it and make this the effort of the medical profession rather than the effort of a group of people who know nothing about the practice of medicine and really are not interested in it except to set up a bureaucracy to control it.

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THE DOCTOR AND MEDICAL PUBLIC RELATIONS

Two hundred years ago when knowledge and skill were not so universal as they are today, the practitioner of medicine provided for himself an Iron Curtain which prevented his patients from accurately appraising his medical competence. His words were few, his attitude profound, and he enjoyed an awed respect because of the mystery which engulfed him. His prescriptions were written in Latin, and the patient who dared inquire concerning the ingredients was answered with words which were equally not understandable. His costume, which included a high silk hat, a frock coat, striped trousers, and a gold headed cane, set him apart from his fellows as "a man of distinction," although the highball glass was not in evidence while he was in public. He disdained to accept his fee directly, and he kept no accounts. A member of the patient's family placed an honorarium in his silk hat which was left on a convenient table while he visited the patient. No one could mistake the doctor for anybody else; he was an individualist, self-sufficient and oblivious to public relations.

As the years have passed, and as preparation and training have advanced, and knowledge—much more knowledge—has been accumulated, the need for mystery and aloofness has disappeared. The doctor you see today dresses informally, fraternizes with the people, admits freely that he cannot perform miracles, often delivers a clinical lecture to the patient regarding the causes, pathology, symptoms, diagnosis and treatment of his disease, writes his prescription in English, and expresses the hope for early recovery of the patient so that he can finish that golf match with him. The doctor today is a human being who admits his limitations and who is doing his best for his patients without pretense or mystery. I may say in passing that he keeps careful accounts and that he renders his bill on the first of each month. He needs good public relations.

The average patient is very fond of his doctor.

He trusts him in every particular. Does it strike you as strange that this same patient distrusts and dislikes the medical profession as a whole? The profession is made up of doctors just like his, but collectively they do not stand high in his estimation. Why is this? Somewhere along the line somebody in organized medicine has not fostered good public relations. There is no doubt that the entire profession is striving for the health and happiness of the human race and that they have accomplished much in increasing the span of life, in the discovery of causes of disease, and of its prevention and cure. What is the answer?

I think that doctors as individuals and as organizations have not kept the public sufficiently informed about their affairs, thereby offending against the second precept of good public relations. The first precept is worthy accomplishment; the second is letting people know about it.

We as individuals have all had patients in our care whose cases were newsworthy either because the patients were prominent in world affairs, or because the injury or the disease was rare and interesting. Perhaps a representative of the press calls upon us for an interview. Do we tell him freely all the facts which are proper for us to divulge or do we assume the attitude that this is our own private business and that the public can go hang? If we tell him the facts, do we allow him to quote us directly or do we forbid him to use our names on the ground that our colleagues might consider this to be advertising? We would be guilty of bad public relations in either case. So long as we refrain from self-praise we may speak freely about the case and we should offer no objection to direct quotation. This protects the newspaper and ourselves. If an article should appear in the press that "a prominent doctor" had cured 5 cases of cancer by applying salt solution locally, the source of the information could not be traced and there could be no opportunity to deny the

absurd article. On the other hand, credulous people might begin to apply salt solution to their suspected cancers and waste valuable time before obtaining competent advice.

A radio station may call you on the phone and say that a prominent antivivisectionist was going to expound his views on a nation-wide hookup. You are invited to refute any misstatements he might make. It would be bad public relations to decline the invitation. If your radio personality might suffer in contrast with the antivivisectionist, you surely would know where to direct the radio station in order to obtain a competent speaker. The medical profession should accept all opportunities offered by radio to disseminate among the people all proper medical information.

There never was a time in the history of medicine when it has been more important that the public understand the problems which confront the medical profession and its fine record than right now when serious consideration is being given to a law providing compulsory health insurance for all our citizens. Untruths are being circulated which reflect upon our motives and our honesty. These lies must be combatted by informing the people of the country concerning our services and our plans to continue to improve medical facilities. The people must be informed that the cost in taxes will be enormous and that they may find that their take-home pay will be only 60 per cent of what they make because of deductions for income tax, social security, and health insurance. The public must be made to understand that competition

and free enterprise which made this country great must continue; that competition and free enterprise have made the medical profession of this country superior to any in the world. Good medical attention cannot be obtained on an assembly line. The doctor must have time and the energy to give each case his best consideration. He must have opportunity for rest and relaxation.

The doctors today in England where socialized medicine is in operation each take care of up to 4,000 patients, and as this number recedes, so does the doctor's income. In order for his family to live decently he must work to his full capacity. Of course the quality of his work must suffer as a consequence. Patients get tired of waiting for hours in overcrowded offices while hypochondriacs, neurotics and fakers who would not be there if they had to pay regular fees take up the doctor's time while he makes records, orders wigs and eye glasses, and signs certificates excusing them from work because of fancied ailments. Haven't they paid extra taxes for free medical treatment? Why not get it.

The public should be warned that if the compulsory health insurance law is passed the step would be final and irrevocable. What officeholder would ever dare political extinction by suggesting that free medical care be taken away from the masses? I do not say, "God help the doctors"; I say, "God help the people."

There is certainly a need for furthering good medical public relations by giving full coöperation to press and radio.

JAMES A. GANNON, M.D.

NURSING FOR THE FUTURE

Bedside nursing began nearly a century ago for the purpose of aiding the physician in ministering to the needs of the sick. Gradually preparation for it has become highly formalized, until now there are about 1,250 schools of nursing (large and small, good, fair and poor) and

official state examining boards with fairly rigid requirements for registration. That high standards of technical training are desirable no one can doubt; nurses are now able to perform many procedures formerly thought to come properly within the domain of the physician. The de-

mand for trained nursing assistance has increased out of proportion to the number of available personnel, and today there is agitation for the establishment of a subsidiary group of "practical nurses" or "nursing aides." The need of such a group is underscored not only by the relative scarcity of graduate nurses but by the increasing cost of nursing service.

It has seemed to some physicians and to others familiar with the nursing situation that a tendency has been developing away from an interest in the sick patient and toward making of the nurse a supervisor, an administrator, or a teacher. The trend seems to be in civilian hospitals similar to the situation in Army and Navy hospitals, in which the nurse merely tells the orderly or corpsman what to do, caring for the patient by "remote control."

Whether this process may be termed "over-professionalization" is, of course, a matter of

opinion. Every physician who is interested in what is going on—and the number of available nurses and their concept of their role are of vital concern to every doctor in practice—should familiarize himself with a recent volume entitled "Nursing for the Future" by Esther Lucile Brown, Ph.D.¹ It may be noted parenthetically that although the author says that certain unnamed physicians were consulted, the Professional Advisory Committee was composed solely of nurses and the Lay Advisory Committee carried no physician in its membership. Space does not permit a detailed analysis, but a close reading of the book compels an uneasy feeling that in furtherance of a zeal for an improvement of professional standing the patient, the beneficiary and *raison d'être* of medicine and all its allied professions, is in danger of becoming the "forgotten man." Much, indeed, has happened since the days of Florence Nightingale!

W.O.

¹New York: Russell Sage Foundation, 1948. Pp. 198.

MEDICAL RESEARCH IN DANGER

Antivivisectionists have six bills in Congress. If they are passed, medical research will be seriously threatened nationally and practically abolished locally.

To meet this threat, physicians, teachers and research workers as well as interested laymen have sponsored a bill which directs the local animal custodian to deliver unclaimed animals to institutions inspected and licensed by the Health Officer of the District of Columbia. Under present law the poundmaster disposes of thousands of unclaimed animals annually, refusing to allow even their dead bodies to be used for teaching or research.

For decades physicians have suspended their professional activities to beat off the attacks of cultists. Although successful in defending their position, they deplore the resultant loss in man-hours and human welfare.

Traditionally, the medical profession and its

allies have surrendered the initiative to the misanthropes, and consistently they have failed to tell the public the how of medical research. The National Society for Medical Research, organized by the Association of American Medical Colleges, proposes to reverse this course by broadcasting the many facts about modern medicine and science which are not generally known, and by taking positive action to advance medical research.

The Committee for Health and Research of Washington, affiliated with the National Society for Medical Research, was founded almost a year ago to promote these objectives. The Committee's officers and executive committee are members of the staffs of the three medical schools, health agencies of District and Federal governments, and professional and scientific organizations. The District Medical and Medico-Chirurgical Societies have endorsed the

program and have appointed delegates to its executive committee. The District Medical Society's delegate is Dr. Frederick C. Fishback; its Secretary, Theodore Wiprud, is public relations adviser to the Committee.

Familiarizing the young and adult lay public with the methods of medicine and the ancillary sciences is the Committee's long-range program. Recently, the Committee helped prepare the unclaimed-animal law and will explain its provisions to District lay groups by means of exhibits, news articles and talks.

There is no lack of personnel, brains or know-how to make Washington a world center of medical research and teaching. Lack of animals for these purposes, however, has long hindered its achieving the prestige of New York, Rochester, Chicago, and other places of international renown. Washington can advance only

so far as the research material permits. It is for this reason that the work of the Committee for Health and Research is so vital.

The Committee needs financial support to carry out its program. Its only source of funds is the friends of medical progress. The Committee expects to meet its modest budget through membership fees and gifts. The Committee is turning first to physicians because they should be its strongest supporters. It is hoped that most of them will join the Committee by sending a dollar—more if possible—to the Secretary of the District Medical Society. The Committee will keep all interested physicians informed of the progress which it makes.

WILLIAM F. HEWITT, JR.

Executive Secretary, Committee for Health and Research

In and Out of Focus

BY THE OBSERVER

Taft on Medical Care

Physicians haven't fared too well in radio debates. With greater frequency than most of us would like to admit, they have not appeared to the best advantage on the air. This has not been entirely their fault. Promoters of some radio "shows" are seldom content with anything less than a bitter clash of personalities or, in less polite language, a dogfight.

Not many weeks ago the subject under discussion on the widely-listened-to and usually excellent Town Meeting of the Air related to the delivery of medical care. Some of the participants were "loaded for bear." The result was most embarrassing to many physician-listeners. Some with whom your Observer talked said that physicians should refuse to par-

ticipate in such an acrimonious discussion, that they had more to lose than gain by taking part.

While your Observer concurs in this conclusion, he was deeply impressed by another Town Hall of the Air program on the evening of March 22, 1949. The subject under discussion was "How Can We Legislate for General Welfare without Curbing Personal Liberty?" Speakers on this broadcast were Senator Robert A. Taft of Ohio, Mr. Henry Hazlitt, columnist for *Newsweek*, Congressman John W. McCormack of Massachusetts, and Mr. Oscar L. Chapman, Undersecretary of the Interior.

There was no clash of personalities nor backbiting in this broadcast, even when Senator Taft brought up the subject of medical care. The following is a transcript of the dialogue which took place at this point in the discussion:

SENATOR TAFT:

I would like to ask [Mr. McCormack]: Is he in favor of a system, of a bill, which proposes that free medical care be furnished by the United States Government to all people in the United States, even if they can afford to pay for it, out of taxes, pay-roll taxes, and other taxes collected by the Government?

CONGRESSMAN MCCORMACK:

In response to the question, in 1935, I helped draft the Social Security Law—the present one. In a democracy you have to make compromises. Senator Taft knows that legislation goes through a severe screening of legislative committees in both branches of the Congress itself. In great progressive reforms, the end is a series of compromises, as we did in social security. Now we are considering an extension.

The Senator tries to put a spot question, so to speak, when he knows, as a legislator, that from his own experience the results are entirely different from that question by itself. My answer to his question is this: In modern society, 12 per cent of our families of America have a family income of \$1,000 a year, or less; 17 per cent between \$1,000 and \$2,000; 21 per cent between \$2,000 and \$3,000. And 50 per cent of the family life of America involves 70,000,000 of our population. When serious illness visits such a family, they have a terrific problem confronting them, and I take the position that something constructive should be done.

SENATOR TAFT:

Mr. McCormack hasn't answered my question. I'm in favor of giving free medical care to those who can't afford to pay for it, but I'm not in favor of giving it to 100 per cent of the population at a cost of five billion dollars from the collection of taxes. That's the distinction. We all have always admitted the principle of free medical care for those who can't pay for it, and relief, etc.

The question now is shall that be extended until the United States Government supplies free medical care, and if free medical care for everyone who can afford to pay for it, why not free food, free clothing, free housing? Then you have no liberty remaining.

MODERATOR DENNY:

Congressman, do you care to comment further?

CONGRESSMAN MCCORMACK:

Yes. Of course, the Senator takes up something that is not legislation, nor the law rather. He knows from his own experience that when a bill gets through Congress, that there are compromises made, as I stated, as in the Social Security Act, but progress is made, and progress is being made now. I'd like to ask the Senator, did you favor Social Security when it was first proposed?

SENATOR TAFT:

I suppose you mean by Social Security the Old Age Pension, if so, yes. But I don't think we got a very good system. I think it ought to be tremendously improved. It's very inequitable, I think, very inadequate, and we have now to extend it to many more people than it already covers—if that's what you mean. I also favored Unemployment Compensation if that's part of what you call Social Security.

CONGRESSMAN MCCORMACK:

Both good Democratic measures.

The question then arose as to what Congress would do about the extension of the Social Security Act.

MR. HAZLITT:

Now I'd like to put this question to Congressman McCormack: Does he think that the Congress or the President can pass any legislation they please that they think is in the interest of the general welfare?

CONGRESSMAN MCCORMACK:

Of course, the answer to that is "No." The answer to that is very plain and the gentleman knew the answer when he asked the question.

MR. HAZLITT:

I'm glad of that answer. Let's keep that on the record.

MODERATOR DENNY:

Thank you. Mr. Chapman, why are you so quiet back there?

MR. CHAPMAN:

My colleague was doing too well. I didn't want to disturb him. I would like to ask Senator Taft a question. Didn't you recently oppose Federal aid to education and public housing legislation as socialism, and aren't you supporting these measures today while at the same time continuing to oppose public health insurance as socialism? Which one is socialism and not the other?

SENATOR TAFT:

Well, in the first place, I've always been for public housing, confined as I say to the lower income groups of the population.

In the second place, I oppose Federal aid to education because of the fact that education is something that is very well financed by the state. The states are spending three billion dollars, all state tax systems are primarily aimed at providing education, and nearly half the state revenues are spent for that purpose.

But in that debate, it came out very clearly, that while that was generally true, it was not true of many Southern states. It came out very clearly and it developed facts, with which I had not been familiar, that in many Southern states, for instance, the colored children were getting about \$10 per child, per year, worth of education.

Not only that, but it came out that those states were unable to provide it, making the same effort as other states. That changed my view of the situation, and I favor a Federal aid to education bill which will, in effect, operate as an equalization fund, which we have in many states, to see that all of the school districts in the country get a minimum sound education for all the children in that state.

Now, you added one other step—housing, education—oh, yes, medical care. Of course, we have to admit that education is socialized. Certainly it's socialized. It's been socialized for 100 years in the United States, and I do believe it's one of those things that Government has to do. But that doesn't mean that we can extend Government service to food and clothing and medical care and housing and everything else for all of the people of the United States. Those are things that are so expensive that you will have to take all their in-

come in taxes, practically, to pay for those things and you'll have a completely socialized state.

Certainly we have some socialism. The post office is socialized, but we can't go much further. In my opinion, it's all a question of degree as far as that's concerned. We can't go much further into many new services without imposing such a tremendous burden. We've already got up to nearly 30 per cent of the national income in taxes. We can't go much further without completely destroying the free enterprise system which provides the taxes which pay for these social welfare services.

Later on during the question period, Mayor Vincent J. Murphy of Newark, New Jersey, queried Senator Taft on his demand for a means test for medical insurance.

"Do you suggest a needs test for unemployment insurance or social security?" the Mayor asked.

Senator Taft replied, "No, I don't suggest a needs test for the cases in which men have no income and have to be taken care of from the bottom up, if you choose. But it seems to me obvious that any man or family which can afford to pay for medical service ought to pay for it. They ought to have the freedom, if they want to take insurance, the insurance ought to be available. If they want to spread their cost over a number of years on the insurance principle, that insurance ought to be available for them. But government compulsory insurance is not insurance. It's not related to the services rendered. It is merely a tax out of which the Government proceeds to give free service to all the people who pay \$1 toward that service. It seems to me that, in any extension of the services, you should take the means test. Unemployment compensation is essentially—there may be people who have outside income—but by definition they have no current income paid them. It seems to me, therefore, they fall within the general principles which I have laid down."

The Town Hall of the Air is to be complimented on the excellence of this program. It was intelligent, enlightening and stimulating.

"...Health Insurance Is Coming..." Statements emanating from Chicago leave little doubt that the American Medical Association proposes to make an all-out effort to blanket the country with voluntary health insurance plans. Clem Whitaker, Director of the AMA's National Education Campaign, in a recent address before the Council of New England State Medical Societies at Boston, said:

"There isn't any question about this: Health insurance is coming in the United States. It's coming in a matter of a very few years.

"There's only one debatable question and that's whether it is coming under compulsion, with politicians at the controls, or whether it is coming under the voluntary system, with doctors at the controls.

"It's our job to show the American people that we can provide them better coverage, at a better price, without any disruption in physician-patient relationships, without any deterioration in the quality of medical care, without exorbitant taxation, and without inviting the socialization of this country.

"It's our job, too, to convince the American people of the simple truth that prepaid medical coverage is no longer a luxury, that health insurance today has become a necessity, just as food and shelter and life insurance are necessities.

"If a man can afford to smoke, he can afford health insurance; the cost is about the same. If a family can afford to go to the movies once a week, that family can afford the finest kind of prepaid health protection.

"It's about time we blasted down the false propaganda of the socializers that the majority of the American people can't afford adequate medical care.

"The great majority of the American people can afford the finest kind of medical care, but they need insurance to meet the problem just as they need life insurance and fire insurance.

"If we can educate the American people to the availability and the desirability of budget-basis medicine; if we can make America health-insurance-conscious, we will have solved this problem, and we will have made one of the finest possible contributions to the health and welfare of the Nation.

"More than 52 million Americans already have decided that *The Voluntary Way Is The American Way* to cope with this problem and have enrolled in voluntary health insurance systems.

"The tremendous growth of the voluntary systems

has come in a very short span of years and has been one of the most spectacular economic developments in our time.

"American medicine and the voluntary health insurance systems already are near the half-way mark in the campaign to provide prepaid, budget-basis medicine for the American people within the normal framework of our free enterprise system.

"The job is nearly half done, but it is of urgent importance that it be completed. Some states have made much greater progress than others in the voluntary health insurance field. Our need now is to build broad health insurance coverage in every state and to work constantly to improve our voluntary systems.

"We already have held preliminary meetings with representatives of the medical care plans and the private insurance companies to pledge them AMA's vigorous assistance in promoting voluntary health insurance, and to enlist their aid in stepped-up selling and advertising campaigns.

"We want everybody in the health insurance field selling insurance during the next two years as he has never sold it before. And we want doctors giving voluntary health insurance intelligent, loyal support in their offices when their patients question them concerning it.

"There's one sound, fundamental principle which needs to be enunciated and reiterated throughout this campaign until every person in this country is familiar with it. That principle is simply this:

"There is nothing that Government can do for the American people in the field of health insurance which they can't do better for themselves—and at less cost!

"The people of this country generally will buy the best product, at the best price, if it is properly presented to them."

Mr. Whitaker is not given to loose talk and one can be sure that whatever he has to say about policies has been approved in advance by AMA officials. Apparently these officials are convinced that half-way measures will not suffice and that organized medicine must take full advantage of its opportunity.



One of the severest critics of *"...the Saviour the British National Health Had Gone..."* Service is Lord Horder, Physician to King George VI. This esteemed physician minces no words in condemn-

ing what he considers objectionable features of the system.

Admitting that it is "too early to judge how much the patient on the one hand, and the doctor on the other, has gained or lost by the government's attempt to nationalize medicine," he remains the skeptic. "Birth pangs," he writes in the January 1949 issue of the *Bulletin of the Vancouver Medical Association*, "were to be expected" and so far "the machine has not broken down" because the load has been very light. The general health of the country, he observes, has been very high and therefore the home visits made by the general practitioner and the consultants have been comparatively low. He admits that a large section of the public "has got quite a 'kick' out of exchanging the public benches of the hospital casualty department for the relative privacy of the doctor's waiting room." But where quality medical service is concerned he suggests that they are "short-changed."

In two respects, the patients have complaints: one has been the difficulty of obtaining medicines without paying for them, and the second has been in the rise of the cost of beds in private hospital wards.

Where the doctors' participation in the Service is concerned, Lord Horder is not so sanguine. He says that the paper work has greatly increased, and physicians' incomes have been reduced. Private practice is virtually nonexistent.

The British Medical Association is blamed for the physicians' situation because of its failure to stand by its guns. Lord Horder says that the Association should not have advised the profession to serve under the health insurance system.

"It is only the doctor who knows what is good doctoring and what is bad, and the public has a right to expect good doctoring. If the machine through which doctoring is to be done was so rapidly and imperfectly constructed that inspection of it caused those responsible for working it to 'warn' the makers that it was not safe,

they would have conferred a benefit upon the public by declining to work it until it was improved. The public would have gratefully respected their action.

"The hundreds of letters that have been sent to the newly-formed Fellowship for Freedom in Medicine, which exists primarily to 'do everything in its power to render the highest standards of practice possible,' record a number of anomalies and obstructions. These are being analyzed by a special committee of the Fellowship. They range from objections to the existing scheme on high moral grounds to economic considerations as homely as how to keep the wolf from the door.

"One doctor writes:

"I find that the whole ethical basis of my daily work has been undermined. I have either to adhere to private work, leave my poorer patients to go elsewhere, and suffer grave financial loss, or else go in for the National Health Service wholeheartedly and, in order to make both ends meet, take on far more patients than I can hope to look after adequately. At the moment I compromise by limiting my National Health Service list . . . but it is a difficult position and may not be tenable for long."

"Many other letters state the same sort of difficulty. Says another doctor:

"I have carried on a successful general practice in this house for over 28 years, earning up to £3,650 a year at its peak. . . . I have collected only 1,286 units in the Service, which represents a loss of 75 per cent of my private patients. My bare expenses, which cannot be reduced, easily amount to £1,500, and my list will bring me roughly £1,000 a year."

"Both types of letter could be multiplied indefinitely. Does someone say, 'But this is only the doctor's point of view?' My reply is, 'There is no such thing as only the doctor's point of view.' Bureau or no bureau, the basic element in any Medical Service is, and must always be, the doctor. It was the crass folly of not recognizing this, and of assuming that personnel can be nationalized, that led to this colossal blunder. The essence of good doctoring is diagnosis, and diagnosis calls for time and a close-up with the patient, both of which are at the moment denied to thousands of practitioners.

"Good doctoring calls for two other things, things that concern the doctor personally—a feeling of satisfaction in the work that he is doing and a sense of economic security. Looking around at the faces of a group of doctors to whom I was speaking recently I wondered why it was that they all seemed so unhappy. Then I realized the cause: their job no longer held for them the spice that it did: the savour had gone out of their work.

"As for a sense of security, in many quarters this had been rudely shaken. The indecent haste with which the National Health Service came into operation made a

proper assessment of the just payment for a doctor's work quite impossible. The Minister did not wait to receive the report of the Spens Committee on remuneration of the doctor, and even now these recommendations have not been implemented. Not only is the whole question of remuneration in a state of flux, the equally important question of security of tenure is also unsettled, whether for the general practitioner or for the specialist. And the knowledge that the Minister's powers under the Act are, as I have so often pointed out, unlimited, spreads much fear and anxiety.

"If my insistence on the importance of the personal factor in Medicine be admitted then all this is bad for doctoring. It is not so much a question whether or no a doctor is going to stand up against all these handicaps in his work, the question of importance to the public is whether or no he should have been put in the position in which he finds good doctoring difficult and bad doctoring easy. That a doctor cannot pay his way unless he has at least 4,000 patients on his list is as great a disservice to the public as it is to Medicine. No medical man or woman should be 'at risk' for 4,000 patients. That may be making Medicine available for every citizen, but is it Medicine?"

It will be interesting to read Lord Horder's article a decade hence in the light of Britain's experience with its most ambitious social experiment.



Ours may be an aging population, but it is also a very healthy one, according to the Metropolitan Life Insurance Company's *Statistical Bulletin*. A study made of its many millions of industrial policyholders discloses that 1948 set a new low record for mortality, 6.5 per 1,000. The *Bulletin* points out that this is the fifth successive year in which there has been a downward trend in the death rate.

"Among white females, virtually every age group recorded a lower death rate in 1948 than in 1947," the *Bulletin* reports. "The declines ranged from two per cent at the oldest ages to almost 20 per cent for the group 15 to 24 years. The marked improvement in mortality among young women was due, in good measure, to the sharp drop in the death rates from tuberculosis and accidents, as well as to the decline in maternal deaths.

Among white male policyholders, a decrease in mortality occurred in all but two age groups. At ages 35 to 44 years, the death rate remained practically unchanged from the year before; at 65 to 74 years, the death rate was up 1.5 per cent from 1947.

"As a result of improved mortality conditions, the average length of life (the expectation of life at birth) among Metropolitan Industrial policyholders was about one third of a year greater in 1948 than in the year before. The average length of life was 67.16 years in 1948, as compared with 66.86 years in 1947. The average has increased more than 10 years in the past two decades."

The mortality from tuberculosis dropped from 34.2 per 100,000 policyholders in 1946 to 30.6 in 1947, and to 26.5 in 1948. This is a decline of more than 22 per cent in two years.

The age-adjusted death rate for white females having tuberculosis reached the low point of 12.9 per 100,000 in 1948, and for white males 36.5. A comparable improvement was shown in deaths due to communicable diseases of childhood. The mortality rate for scarlet fever, diphtheria and whooping cough reached new lows. Among communicable diseases, measles was the only one which did not drop to an all-time low.

The *Bulletin* observes that 1948 was a "measles" year and therefore the figure of .5 per 100,000 was regarded as favorable. There was a sharp reduction in deaths due to syphilis, diarrhea and enteritis, appendicitis, and diseases of the puerperal state, due to the use of penicillin and the sulfa drugs.

Because of the prevalence of respiratory diseases early in the year, the mortality in this category did not show a sharp decline. But the death rate from both influenza and pneumonia was also extremely low; in fact, it was 40 per cent below the average for the years 1938 to 1947. Again the penicillin and sulfa drugs played an important part.

Only in one disease was there a generally unfavorable trend. The number of poliomyelitis cases (27,658 reported) has been exceeded only in 1916. On the brighter side, the fatality rate from this disease was one of the lowest on record.

Of particular interest to many readers of this

column will be the Company's experience with older policyholders. On this phase of the situation the *Bulletin* states:

"In recent years the increases in mortality have been largely concentrated in the diseases of middle and later life. The year 1948, however, was favorable even in this regard. Cancer alone among these diseases showed an increase in death rate, from 109.2 to 112.0 per 100,000. Diabetes and the diseases of the cardiovascular-renal system as a group each registered death rates somewhat lower than in 1947. The decline in the mortality from chronic nephritis, cerebral hemorrhage, and the chronic heart diseases more than offset the increase in the death rate from the diseases of the coronary arteries and angina pectoris."

Deaths due to suicide and homicide were lower than in either of the two previous years but they were well above those during the War years. Accidents in all forms were at an all-time low. Mishaps in the home and industry were at a minimum too. The death rate from motor vehicle accidents dropped from 15.3 per 100,000 in 1947 to 13.9 in 1948, and this despite the fact that there were many more automobiles on the road.

All around, it would appear that the country enjoyed one of the healthiest years in history.



Wig Day No matter how strongly opposed one may be to compulsory health insurance, one has to admit that there are some appealing features of such a system. There is one feature in particular which holds a sentimental appeal for your Observer, and for a very good reason, as readers will learn. Henry McLemore, columnist for the *Washington Evening Star*, in one of his humorous contributions, recently commented on this aspect of the British National Health Service. He did such a superb job that your Observer is content to let his observations stand as being identical with his.

"As much as I dislike socialism of any sort," Mr. McLemore writes, "honesty forces me to admit that

England's socialized national health service has come through with a measure that almost justifies its existence.

"I refer to the measure that guarantees a free wig to every baldheaded English citizen who wants one. All a baldheaded Englishman has to do is show his shining scalp to a health service official, fill out a form declaring that he is not getting the wig for export purposes or for use as a mop or duster, be tried for size and color, and the wig is his.

"This is one of the greatest steps ever taken by a government. I am inclined to believe that not too many years from now Wig Day will be celebrated throughout the world. At long last the wig has been released from the somewhat shameful position it has wrongfully been made to occupy for centuries. Thanks to England, the wig soon will stand on as respected a plane as, say, spectacles. No one has ever laughed or snickered at a man who wore glasses because his eyes weren't quite up to par, but a man wearing a wig has always been subjected to ridicule, when all he was doing was giving artificial aid to a pate that didn't have a green finger, so to speak.

"It is to be hoped that this country will take a similar step. Never mind about nationalizing the railroads, coal mines, and communication systems. Just let the good old United States of America give wigs to those of us who need them. If it doesn't, my guess is that hundreds of thousands of us who need wigs will seek British citizenship. It would be difficult to give up citizenship in the land of our birth, but only the bald know the happiness that would come from not being bald any more.

"The English climate is miserable. The food over there, even when it is plentiful, is wretched. The taxes are out of this world. Dukes, viscounts and the like are pretty boring as a whole. But a magnificent head of hair would make up for these disadvantages.

"Oh, to have enough hair to get untidy! Oh, not to have to take 15 or 20 wispy strands and try to arrange them so that they look like 169,421 strands! Oh, what joy it would be to have a comb get stuck in your hair once again, and have to tug and yank to get it free!"

As pleased as Mr. McLemore is with this feature of Britain's medical care system, he nevertheless finds flaws in it.

"The only thing I don't like about the English provision for wigs is that a man gets only one wig. That is not enough. A man should have no fewer than a

(Continued on page 284)

REPORT OF BOARD OF TRUSTEES OF MEDICAL SERVICE*

For the first time you and I, the other members of the Board of Trustees, and the other thousand or more participating physicians of the MEDICAL SERVICE OF THE DISTRICT OF COLUMBIA are able to get together to hear a reporting of our progress. Although MEDICAL SERVICE was established in 1946, a general meeting of the membership has not been possible before. At the time MEDICAL SERVICE was established, a Board of Corporators of some twenty men was elected, which in turn elected some seven members of the District Medical Society to a Board of Trustees, and, after nominations from various other organizations, four members representing the United States Public Health Service, the District Health Department, and the Metropolitan Health Council. It was not until April 1, 1948 that it was possible to enroll subscribers, and so on April 1, 1949, we have a year of actual operation of this undertaking of ours behind us.

Having completed a year of operation, it is befitting that we should report on the things accomplished, the hard work involved, and the problems and goals ahead. Needless to say, there are problems yet unsolved and there are sources of irritation which need be removed, but considering the extent of our undertaking, its intricate mechanism and its rapid growth, your Board believes that there is every reason to be optimistic. As you have heard from the previous speakers, MEDICAL SERVICE OF THE DISTRICT OF COLUMBIA is but one of almost one hundred similar plans throughout the United States now being operated in all states except two.

We should point with a good deal of pride to our rapid growth, to the reasonable way in which things have gone forward, to the interested and active participation of the physicians of the District of Columbia and surrounding territory, and to the enthusiastic reception which MEDICAL SERVICE has received from the public at large.

Participating Physicians.—While enrollment of participating physicians did not get under way until July 1947, the groundwork had to be laid for operation and working out of satisfactory arrangements

with Group Hospitalization, which had agreed to administer the plan. There were many conferences on the provisions of physicians' agreements, the provisions of subscribers' contracts, the fee schedule, the processing of claims, and other mechanical matters which do not appear upon the surface of the workings of such a plan. It was only when the provisions of these documents had been agreed upon, and they were available for distribution, that the enrollment of physicians could get under way.

The response was prompt and gratifying. At its meeting on November 5, 1947, the Board of Trustees was informed that 726 physicians had agreed to participate. As the SERVICE gained momentum, the enrollment of physicians was naturally stimulated. The last figure furnished to the Board of Trustees by the administrators of the SERVICE was placed on April 1, 1949 at 1,008 participating physicians. All of these physicians are members of the Medical Society of the District of Columbia.

Coöperating Physicians.—As might have been expected, there were some unforeseen developments with respect to physicians' participation. The Medical Society's Committee on Medical Care, which developed the plan, had been so concerned with many other problems that they had overlooked a matter which had been a source of difficulty elsewhere, that is, the participation of physicians who are not members of the Medical Society of the District of Columbia. The situation in the District of Columbia is complicated by the fact that many persons who subscribe to the SERVICE work in Washington but live in nearby Virginia and Maryland. There were some protests from physicians in nearby states, who objected because their patients were not permitted to employ their services. The injustice of this was immediately apparent. There also was the matter of colored subscribers who wished to use the services of their own colored physicians.

The Board discussed this matter at several meetings, and finally, on March 22, 1948, adopted the following amendment to its by-laws:

"Medical service may, at the discretion of the Board of Trustees, be rendered subscribers by

* Presented at the First Annual Meeting of MEDICAL SERVICE OF THE DISTRICT OF COLUMBIA, April 6, 1949.

legally qualified doctors of medicine in good standing in other medical societies affiliated with national medical organizations; provided such physicians agree to conform to the rules governing the operation of the SERVICE. Such physicians shall not have a vote in the management of the affairs of the SERVICE."

The enrollment then of coöperating physicians went along apace. On March 1, 1949 there were 118 coöperating physicians from nearby Maryland, Virginia and the District of Columbia. Of these, 25 are members of the Medico-Chirurgical Society, Inc. of Washington. The enlisting of the interest and services of these physicians who are not members of the District Medical Society, plus the participation of those members of the District Medical Society who live in Virginia and Maryland and do some practice there, has allowed us to render a much fuller service to the suburban subscribers.

Committee on Physicians' Relations.—We need not tell you that the success of MEDICAL SERVICE depends to a large extent upon the good will of the medical profession. This fact caused the Board to create the Committee on Physicians' Relations, a committee composed of 15 members having 1 representative from each of the specialties and 2 representatives from general medical practice. The amendment providing for this Committee was adopted on November 1, 1947.

This committee as a whole has not met as yet because it has not been necessary, and individual members of the Committee have been called on only sparingly in order not to place a burden upon any individual. It is anticipated, however, that in reviewing the services of MEDICAL SERVICE, the Committee will be used more and more in the coming years.

Enrollment of Subscribers.—The beginning of enrolling of subscribers to MEDICAL SERVICE was of necessity contingent upon a satisfactory enrollment of a sufficient number of physicians. It had been previously agreed that the surgical-obstetrical policies would not be offered to the public until roughly 50 per cent of the then practicing members of the Medical Society had been enrolled. With this accomplished in November 1947, the office machinery was set up at Group Hospitalization for offering MEDICAL SERVICE to all Group Hospitalization subscribers.

The selling of MEDICAL SERVICE policies has been left entirely to the administrators of Group Hospitalization, Inc. and your Board believes that they have done an unusually good job. When it is considered that MEDICAL SERVICE enrolled its first subscriber on April 1, 1948, and nine months later on December 31, 1948 there were 52,468 contracts in effect, covering 110,684 persons, and that three months later on March 31, 1949, there were approximately 63,712 contracts covering 135,788 persons, there is every reason for satisfaction. The number of enrollments should continue to increase. Of course, this subscriber growth will depend in large measure upon how well the SERVICE is conducted. The best guarantee for increasing the number of subscriptions is the satisfaction of those who are within the plan. Your Board is confident that this growth and satisfaction will be maintained and that the plan will be broadened to be a more useful one to its subscribers.

Administration.—As has already been pointed out, Group Hospitalization was engaged to administer the business affairs of MEDICAL SERVICE. Their chief duties are the enrolling of subscribers and the administering of the business affairs of MEDICAL SERVICE.

Following the signing of this agreement, the National Savings and Trust Company was agreed upon as a repository for the funds of MEDICAL SERVICE. All receipts are now deposited in the general fund, and can be withdrawn only by checks countersigned by the President or Vice President, and signed by the Treasurer or Assistant Treasurer. Funds are transferred to an operating account against which the administrators of Group Hospitalization, Inc. may draw checks. Surety bonds in the proper amount to protect MEDICAL SERVICE have been taken out by MEDICAL SERVICE and all those handling the funds of MEDICAL SERVICE. We do not wish to bore you with too many details about the work of MEDICAL SERVICE, and will conclude this phase of our report with the observation that this is no longer a small business operation. As you will learn from the Treasurer's report, it involves large sums of money. During the first eleven months \$271,543 was paid to physicians.

Quite naturally, in its financial relationships with its participating and coöperating physicians, there have been some points of friction. It soon became

apparent that there were some inequities in the fee schedule, on the one hand, and on the other hand, many procedures had not been listed at all. These things have given your Board a great deal of concern and have been considered at great length. Several things have been done to improve this situation.

A medical advisor to MEDICAL SERVICE and Group Hospitalization was engaged. The services of Dr. A. Clagett Gray were obtained, to the great gratification of all parties concerned. Dr. Gray's duties are to discuss complaints and objections with participating physicians, to advise MEDICAL SERVICE and Group Hospitalization about points of medical controversy, and to advise with the Committee on Physicians' Services about unusual or controversial cases. His services have been invaluable.

Committee on Physicians' Services.—Most bills received from participating physicians are of routine nature, therefore are paid without question, handled entirely by the staff administering MEDICAL SERVICE. However, certain bills are not of routine nature, and in order to provide for their proper handling, a small committee of physicians chosen from the membership of participating physicians in MEDICAL SERVICE was appointed. This committee, composed of Drs. Charles Stanley White, Henry L. Darner and Herbert S. Gates, has worked hard and faithfully and has rendered an outstanding service to MEDICAL SERVICE. It has been their duty to review some 25 to 30 claims every two weeks for the last several months. I need not point out to you that in any new plan there are controversial claims, and many types of cases on which policy has not become firmly established. All of these things fall to the discretion of these excellent physicians.

Mention might be made again of the fee schedule. As previously stated, there are inequities, and there are procedures which have not been included, thus leaving the schedule incomplete. Your Board wishes you to know that complaints about these two things have not gone unheeded. They have received the greatest attention and will continue to receive the attention of your Board during the coming year, during which time the reviewing of the entire fee schedule is contemplated. It is the object of the Board to develop a schedule which will be as fair as possible to all physicians participating in the plan.

Of course, it does not expect to devise a perfect schedule since this is something never accomplished by any plan. The Board will, however, do its best, seeking the advice of individual physicians and organized groups of physicians in every field of medicine. Having received this advice, it will be tempered by the actuarial experience of other plans, and our own actuarial experience in making final decisions. It must be recalled that MEDICAL SERVICE is only completing one year of operation, and that not a completely full year, since obstetrical claims are just beginning to come in and the load of some other claims has been lighter than might well be expected. During the next year it is expected that a full load of claims will have been received, and at that time our own actuarial experience will be of value to us.

Administrative Problems.—As you can readily imagine, there are many administrative problems. Some of them are due to the failure on the part of the participating physicians to read their agreements carefully. Others are due to the fact that the claims filed by participating physicians have not been filled out accurately and fully enough. When essential information is not included in the physician's report, there will naturally be delays in the processing and paying of claims. The physician's report has been made as brief and as simple as possible, but an answer to all of the items listed is essential to the proper handling of such a claim.

From time to time your Board receives reports that too long a waiting period takes place before settlement is made to physicians. There are several reasons for this. First, the office machinery for handling such claims has had to be expanded more than was anticipated and this slows down claim adjustments. Many cases are controversial in nature, either as to the type of procedure done, the date of onset of the medical condition, or the fee to be allowed for such a condition. When these things are true, these claims must go before the Committee on Physicians' Services and the settlement delayed an additional two to three weeks. An additional cause for delay is the fact that when a patient has had several services rendered, as by a surgeon, an anesthetist, a roentgenologist, and a pathologist, it is necessary to have all claims in hand before a final settlement can be made. At the present time there is an average period of some

four weeks before settlements are made. With the additional delay due to the above factors, the period of settlement will at times be as high as seven to eight weeks. With improved facilities, a greater knowledge on the part of the participating physicians and the administrative staff, and a further maturing of the plan itself, the period of settlement should be decreased to within two to three weeks of the time the service is rendered.

It is most important that physicians participating in the plan keep the administrators and the Board of Trustees informed when they have criticisms, constructive or otherwise, of MEDICAL SERVICE. Constructive suggestions of all sorts will be most welcome. Every effort is and will be made to make MEDICAL SERVICE function as smoothly as possible.

Associated Medical Care Plans.—As a natural outgrowth of the increasing number of voluntary medical care plans, an association has grown up called the Associated Medical Care Plans. The purpose of this association is to facilitate the exchange of information, to help in standardizing benefits offered to subscribers, and to improve the efficiency of their administration. It is hoped in the future that this association will aid in the enrolling of the national accounts, such as those large companies having employees in a number of different states. It is obvious that in making such a move the national association must be in a position to offer fairly standard benefits and subscription rates. The cost of participation in this association is very modest, and your Board, at its meeting on September 13, 1948, voted that MEDICAL SERVICE should affiliate itself with the Associated Medical Care Plans, which is sometimes called the Blue Shield.

At its last meeting, your Board voted to seek the Seal of Acceptance of the American Medical Association.

Conference of Physicians' Secretaries.—Within the past week a Conference of Physicians' Secretaries has been held under the joint sponsorship of the Medical Society and MEDICAL SERVICE. The purpose of this conference was to orient your secretaries with respect to the multiple activities of the Medical Society and to inform them of the operation of MEDICAL SERVICE. Much interest was shown in MEDICAL SERVICE and many questions were

asked, particularly about the filing and handling of claims. The answers given would seem to satisfy the secretaries, and we believe this conference was worthwhile.

New Committees to Plan Additional Benefits.—It has been apparent from the beginning that if MEDICAL SERVICE was to be of the greatest usefulness, it would have to broaden the services which it offers. This has been particularly true with respect to medical care. Your Board, therefore, authorized the appointment of a Committee on Medical Care in the Hospital. This committee has made a preliminary report and is working on the details of including all types of medical care within the hospital at the earliest possible moment.

The necessity for hospitalizing patients with minor surgical complaints has been a source of great annoyance and some expense. Your Board has appointed another Committee on Office Procedures, which has made a preliminary report recommending the including of certain office surgery in the benefits of the plan, thus making it unnecessary to hospitalize many patients. It is the hope of your Board that with the completion of the work of these committees, the plan may be broadened to give greater service to the subscriber and increasing convenience to the physician.

CONCLUSION

In concluding this already lengthy report on the first year of operation of MEDICAL SERVICE, it must be very apparent to you that you have a very active medical business under your sponsorship. It is, however, still in its infancy and requires the enthusiastic support and genuine interest of every member of the medical profession of the District of Columbia. This is especially vital at a time when the profession's future is, to put it mildly, uncertain. We are in a period of great social changes, not only in medicine, but in every field of endeavor. We are in a period of great experimentation. It behooves the medical profession, then, to be forward-looking, to do its own experimenting to make the necessary changes itself in order to keep pace with the ever-changing social picture.

You are the benefactor and the beneficiary when you take part in this major undertaking of planning voluntary prepaid medical care. You are the bene-

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Washington Physicians of Yesterday



XLVII. HENRY WILLIAM JAEGER, M.D.

Not that he acquired academic fame or public renown may Dr. Henry William Jaeger be memorialized, but because he was a fine example of the beloved family doctor of tradition and story, expending his energies in the service of his patients and winning their heartfelt gratitude and affection. Just as through the symbol of the Unknown Soldier are we glad to honor and revere each individual of the vast host of those heroes who have been sacrificed in their country's service, so a tribute to such as Dr. Jaeger may be taken as applying with equal force to the honor of every one of the countless multitude of physicians serving humanity with arduous and faithful devotion and carrying out the best ideals of the medical profession.

Dr. Jaeger was born March 14, 1888, in Washington, D.C. He received the degree of M.D. from George Washington University in 1911, and then interned for a couple of years in Casualty Hospital of Washington and the German Hospital of Brooklyn. From 1913 for the remainder of his life he carried on a large general practice among the people of Capitol Hill, whom he served with tireless and appreciated energy and ability. Of unassuming, friendly, and pleasing personality, not only did Dr. Jaeger treat his patients' ills, but he was welcomed into the intimacies of their hearts and homes and served them as a faithful friend and trusted counsellor. He was connected with Providence and Casualty Hospitals and the outpatient department of George Washington University Hospital. In 1914 he became a member of the District of Columbia Medical Society, in which he rendered some committee service.

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ORDINARY LIFE INSURANCE

EDITOR'S NOTE: This is the second of a series of brief, informative articles on insurance prepared by an insurance counselor at the request of the Editor. The first, on Disability Insurance, appeared in the March issue of the MEDICAL ANNALS. The other subjects to be covered are: Twenty-Payment Life, Retirement Income, Term Insurance and Family Income Contracts.

THE CAPITAL VALUE OF A DOCTOR'S LIFE

The professional man gave life to the institution of Life Insurance and so it is only fitting that Life Insurance should give life to the professional man. It provides Life for his loved ones in case premature and unexpected death should strike him down in his prime; Life to his home in the form of a living income when he is gone; Life to his children in the form of adequate schooling and cultural advantages; and Life to him when the passing years have taken strength from his limbs and keenness of thought from his mind.

In many ways the investment which a doctor makes in his profession is akin to the investment which the business man makes in his business. The doctor's investment is not a tangible one, for his stock in trade is his knowledge, ability and skill; however, this investment in brains and ability builds for him a cash-producing asset just as definite as that which the business man builds when he increases his assets by enlarging his factory or increasing the stock in his store.

Just how large an amount a doctor may expect to earn over his normal expectancy is variable, but even a modest annual income becomes a potential small fortune over the years. For example, a doctor earning \$7,000 annually over a 30-year period has every reason to anticipate total earnings of \$210,000. As long as he lives and works, his investment in himself is as valuable as a successful restaurant or factory to a business man. If a doctor stops work or dies, however, his investment in himself and his anticipated future earnings become worthless.

Consequently, since the doctor's investment is only of value so long as he is alive and working, it is absolutely necessary, if he and his family are to realize the capitalized value of his earning power, that he live. He has bought in advance the right and the title to receive a good income. Now to die, with his investment made, but with his income still uncollected, would mean to lose all of the income which he and his family have every right to expect.

THE USE OF INSURANCE

So the doctor's problem is to protect himself against the hazard of death, to make sure that those future dollars will come to his family. And the only way he can promise his family that they will receive those dollars is to use Life Insurance. Only Life Insurance can offer the system which will guarantee that his death will not cheat his family out of those dollars which are theirs by the right of his training, experience and skill. Life Insurance promises the doctor that no matter how suddenly he is snatched away from his work, future dollars will not be denied to his family. Life Insurance offers the opportunity of building up a reserve against the hazards and emergencies which the future conceals.

There are a number of forms of Life protection that may be purchased, Term, Ordinary Life, 20-Payment Life, Endowment at Age 65, and many others; however, the Ordinary Life contract is the most popular policy for providing permanent and economical estate protection. In this article, therefore, we will deal only with that form. Many men of intelligence think that an Ordinary Life contract requires premium payments until death and that you have to die to win. This is not true at all for the Ordinary Life contract provides a good investment as well as economical protection.

For example, if a doctor, aged 40, purchased a \$10,000 Ordinary Life Contract in an average Mutual Life Insurance Company, and left his dividends with the company to accumulate at interest, on the basis of today's scale, his contract would normally become completely paid-up for \$10,000 in 25 years. That means that he has purchased a fully paid estate of \$10,000 for total deposits of \$7,835. At age 65, the guaranteed cash value and dividend accumulations* amount to approximately \$6,800, so the actual cost of carrying the \$10,000 of protection over the 25 years is about \$100. This cash value of \$6,800 can be used to provide monthly pension income for

*Dividends are not guaranteed and vary from year to year with the Insurance Company's experience.

life under any one of a half dozen guarantees in the policy.

INSURANCE AS PROPERTY

The purchase of Ordinary Life Insurance is a real bargain for it is the only form of property that guarantees to deliver the principal amount in event of death at any time and to return nearly all of your money if you live. By way of illustration and contrast, how would we react if a real estate salesman approached us with this proposition: "Here's a \$10,000 house. You pay me \$313.40 a year. If you die, no further payments are necessary. Your family gets the home free and clear. If you live 25 years, the house is yours—no further payments required; or if you like, I'll guarantee to take it back for the same amount you paid to me. If you don't want to do that, I'll rent it from you for as long as you live and guarantee to pay you \$42.84 a month."

No real estate operator will give you a deal like that but it is routine with the insurance companies.

Another important advantage in the Ordinary Life Contract is its "can't lose" feature. To illustrate,

\$2,040, or he can take the cash value of \$1,023.70*, or he can take 9 years and 43 days of Insurance protection in the amount of \$10,000 without paying out another penny. It's a "can't lose" proposition all the way.

DIFFERENCES IN COST

Costs differ widely among the many excellent companies writing Ordinary Life Insurance. The dividend experience of one company will be vastly superior to another and the net cost of comparable coverage will differ over the years by many thousands of dollars. A doctor can buy his Ordinary Life Contract in a Mutual Company and receive annual dividends to reduce his payment or he can buy in a Nonparticipating Company on a guaranteed cost basis. The initial cost differences for \$1,000 of Life Insurance vary considerably. In some instances, these differences are equalized by dividend payments, and in other instances, the differences become even wider. Illustrated below are a number of the leading insurers, their charges for \$1,000 of Ordinary Life Insurance at ages 30, 35, 40, 45, 50 and 55 and the first-year percentages of difference between them.

NONPARTICIPATING ORDINARY LIFE

Age	Aetna	Franklin	Jefferson Standard	Manufac- turers	Travelers
30	16.56	16.74	15.92	15.54	16.56
35	19.10	19.20	18.50	17.89	19.10
40	22.24	22.38	21.83	20.85	22.24
45	26.67	26.65	26.16	24.88	26.67
50	32.35	32.30	31.84	29.98	32.35
55	39.72	39.75	39.38	36.82	39.72
	156.64	157.02	153.63	145.96	156.64
	7.3	7.6	5.3	—	7.3

PARTICIPATING ORDINARY LIFE

Connecticut Mutual	Equitable	John Hancock	New England Mutual	New York Life
20.85	22.24	18.60	19.04	21.49
24.01	25.42	21.61	22.26	24.38
27.97	29.40	25.38	26.22	28.11
32.97	34.45	30.18	31.34	33.01
39.38	40.92	36.36	37.82	39.55
47.69	49.33	44.45	46.12	48.48
192.87	201.76	176.58	182.80	195.02
32.1	38.2	21.0	25.2	33.6

suppose a doctor undertook to buy a small apartment as an investment and made annual payments of \$313.40. After 5 years, he found that he was financially unable to make further payments so his equity of \$1,567 is lost. Certainly, the real estate operator is not going to give him ownership of one or two units. The doctor loses his equity. This is not possible in the purchase of insurance. The doctor who makes five payments into the Ordinary Life Contract has a completely paid-up estate of

Obviously, there are so many excellent companies for the doctor to choose from that he must be guided entirely by his broker. The average agent today is well educated and quite competent to advise and answer the doctor's questions. The best company is the one in which the doctor has his insurance for that is the only one that will pay dollars to his family when he dies.

* Including dividends.

ADMISSION AND COMMITMENT PROCEDURES FOR GALLINGER AND SAINT ELIZABETHS HOSPITALS

T. GILLESPIE WALSH

Chairman, District of Columbia Commission on Mental Health

ALBERT E. MARLAND, M.D.

Medical Member, District of Columbia Commission on Mental Health

There are three main avenues of approach to inpatient treatment in Gallinger Municipal Hospital or Saint Elizabeths Hospital; or, in the event commitment is considered necessary, to the Administrator of Veterans Affairs for placement in a Veterans Facility: (1) voluntary admission, (2) police action, and (3) family action.

VOLUNTARY ADMISSION

A resident of the District of Columbia (citizen) may apply personally and obtain permission to enter either Gallinger Municipal Hospital or Saint Elizabeths Hospital for examination, observation and treatment.

Gallinger Municipal Hospital.—The law provides: Any person believing he has, or is about to, become mentally ill may, upon his own written application, in the discretion of the chief psychiatrist of Gallinger Municipal Hospital, enter Gallinger Municipal Hospital for observation and place himself subject to examination and commitment as hereinafter provided (D. C. Code, 1940, Title XXI-310).

The law provides for application directly to the chief psychiatrist; however, the practice has developed of applying at the Hospital Permit Bureau, Health Department, Room 1044, Municipal Center, 300 Indiana Avenue, N.W., for a permit. The permit identifies the patient, his relatives, residence, and financial status. It is a ready and expedient procedure.

Often application is made on behalf of another. The officials of the Permit Bureau must be more exacting. They require assurances of the necessity for admission, and secondly, that the patient will make voluntary request at the time of arrival. Often, permits have been obtained for others only to have the patient refuse to enter upon arrival. This is the Voluntary Admission—the patient cannot be compelled to enter against his or her will—without authority of law.

Saint Elizabeths Hospital.—The law provides: "That (a) the Superintendent of Saint Elizabeths Hospital may receive therein as a boarder and patient any adult person who appears to the Superintendent to be in need of mental care and treatment in a mental hospital, and who makes written application therefor and who is determined by the Superintendent to be mentally competent to make such application . . ." (Public Law 737—80th Congress).

This statute, strictly construed, indicates application must be personal and made directly to the Superintendent of Saint Elizabeths Hospital.

Inquiry develops that application is first made to the Director, Interstate Services, Board of Public Welfare, Room 2018, Municipal Center, who is obligated under the law to obtain assurances of facts such as residence, ability to pay expense, etc., before issuing a permit, which is presented to the Superintendent, or member of staff at Saint Elizabeths Hospital, for the exercise of his discretion.

INVOLUNTARY ADMISSIONS—POLICE CASES

Public Places.—Any member of the Metropolitan Police Department or other officer authorized to make arrests in the District of Columbia is authorized to apprehend and detain, without a warrant, any insane person or person believed to be of unsound mind, found on any street, avenue, alley, or other public highway, or found in any public building, or other place within the District of Columbia.

Certificates and Affidavits.—The Major and Superintendent of Police is authorized to order apprehension and detention, without a warrant, of any indigent person alleged to be insane, etc., found elsewhere in the District of Columbia than the places enumerated in the preceding paragraph, whenever two or more responsible residents of the District of Columbia shall make and file affidavits, and furnish the certificates of at least two physicians who shall certify that they have examined the person alleged to be insane or of unsound mind, and that

such person should not be allowed to remain at liberty and go unrestrained, etc. (D. C. Code, 1940, Title XXI-327).

PRIVATE PETITION—FAMILY ACTION

Appointment of Committee.—The father, mother, husband, wife, or other, as nearest relative available, or next, friend, may file a petition to consider a person's mental condition when it is believed desirable to have the Court appoint someone to act for and supervise another; such action, not contemplating commitment to a hospital, but to the custody of relatives who can give the necessary supervision and will administer the patient's funds and property, under the direction of the Court.

Families usually desire to employ attorneys of their own choice, while patients of the Army, Navy, Marine Corps, and Veterans and their families are usually represented by Government attorneys.

Attachments.—Procedure the same as above, except when immediate apprehension and detention in either Gallinger Municipal Hospital or Saint Elizabeths Hospital is deemed advisable—

“Upon the filing with the Court of a verified petition as hereinabove provided, accompanied by the affidavits of two or more responsible residents of the District of Columbia setting forth that they believe the person therein named to be insane or of unsound mind, the length of time they have known such person, that they believe such person to be incapable of managing his own affairs, and that such person is not fit to be at large or go unrestrained, and that if such person be permitted to remain at liberty the rights of persons and property will be jeopardized or the preservation of public peace imperiled or the commission of crime rendered probable, and that such person is a fit subject for treatment by reason of his or her mental condition. . . .” (Public Law 861—80th Congress).

The petition (and affidavits) must set forth clearly the seriousness of the mental illness, and the necessity for an attachment. In which event, the Judge will direct the U. S. Marshal to apprehend and detain the patient in either Gallinger Municipal Hospital or Saint Elizabeths Hospital, as prayed in the petition.

However, the Judge may require further proof and frequently does; for instance, that one of the

affidavits be executed by a qualified physician who has made an examination and set forth his findings in some detail. The procedure is the same as a warrant for arrest—police action.

MEMBERSHIP

The following applicants for membership were duly elected to membership at the meeting of the Executive Board, April 4, 1949, in accord with Amendment XI, Section 2, of the Constitution and By-laws of the Society:

Active Members

Willy E. Baensch, Georgetown University School of Medicine
Pearce Bailey, 1426 33rd Street, N.W.
Allan B. Coleman, 1433 Whittier Street, N.W.
Dan J. Feriozi, 2011 37th Street, S.E.
Richard H. Fischer, 915 19th Street, N.W.
Melvin O. Goodman, 5019 Reno Road, N.W.
Geneva E. Goodrich, 1028 Connecticut Avenue, N.W.
J. Leon Helgott, 1801 Eye Street, N.W.
Robert P. Hill, 901 23rd Street, N.W.
Ermo P. Ingel, 1222 Monroe Street, N.E.
Orlin H. Jorgensen, 1801 K Street, N.W.
Seymour Lifschutz, 2100 Belvedere Drive, Silver Spring, Md.
Frank J. Murphy, 1517 30th Street, N.W.
Neel J. Price, 901 23rd Street, N.W.
Boris Rabkin, 379 37th Place, S.E.
Morton Harold Rose, 4721 Blagden Terrace, N.W.
Clayton E. Wood, 3130 Wisconsin Avenue, N.W.

Associate Members

Charles V. Amole, 114 North Washington Street, Alexandria
Va.
M. Frances Ayres, 1426 33rd Street, N.W.
John J. David, Walter Reed General Hospital
Carson Lee Fifer, 114 North Washington Street, Alexandria,
Va.
Ernest Emery Harmon, Woodmoor, Silver Spring, Md.
Robert A. Muilenburg, 1426 33rd Street, N.W.
Byron A. Nichol, 5539 First Street, N.W.
Austin B. Rohrbaugh, Jr., 104 Chevy Chase Drive, Chevy
Chase, Md.
William C. Schaefer, 1234 Dale Drive, Silver Spring, Md.
Leslie N. Tauber, 6519 Piney Branch Road, N.W.

The following applicants for membership will be voted on at the meeting of the Executive Board, May 23, 1949:

For Active Membership

Jeanne C. Bateman, George Washington University—1942
Nicholas J. Cotsonas, Jr., Georgetown University—1943
Addison M. Duval, Medical College of Virginia—1929

(Continued on page 284)

News and Personals

As usual, a number of medical organizations are holding their annual meetings previous to or in conjunction with the AMA Convention in Atlantic City N. J., early in June.

The **Fifteenth Annual Meeting of the American College of Chest Physicians** will be held at the Ambassador Hotel, June 2-5. Speakers from several foreign countries are scheduled to appear on the program.

The **American Medical Women's Association** will convene, June 4 and 5.

The **Woman's Auxiliary to the AMA** will hold its 26th Annual Meeting, June 6-10. Headquarters will be at Hotel Haddon Hall and tickets will be available at the registration desk. A cordial invitation is extended to all members of the Auxiliary, their guests, and guests of physicians attending the AMA Convention to participate in all social functions and to attend the general sessions of the Auxiliary.

The first meeting of the newly formed **International Academy of Proctology** is scheduled to meet at the Marlborough-Blenheim, June 10. A copy of the program to be presented may be obtained by writing to Dr. Alfred J. Cantor, International Academy of Proctology, 43-55 Kissena Blvd., Flushing, N. Y.

The final meeting of the **Washington Society of Pathologists** will be held at 8:30 p.m., May 21, in the auditorium of the Medical Society of the District of Columbia. Dr. Roger D. Baker, Professor of Pathology, Medical College of Alabama, will speak on "New Aspects of the Pathogenesis of Vascular Sclerotic Disease." The meeting will be preceded by the annual banquet in Room 259 of the Mayflower Hotel at 6:30 p.m. Dr. Baker will be guest of honor.

The **National Physicians Committee**, a group formed in 1940 to carry out a public information program for the medical profession, has announced its decision to disband. Until June, 1947, the group,

CALENDAR OF MEETINGS

- April 1 Board of Censors
- April 4 Executive Board
Board of Censors
Washington Psychiatric Society
- April 5 Subcommittee on Medical Personnel
Naval Reserve Medical Units
- April 6 Subcommittee on Mental Health
Annual Meeting of Medical Service
- April 7 Executive Board of Woman's Auxiliary
- April 8 Committee on Emergency Medical Service
- April 11 Committee on Cancer Control
Annual Lecture Series I
- April 12 Subcommittee on Tuberculosis
- April 13 Scientific Meeting of Society
Woman's Auxiliary
- April 14 Subcommittee on Venereal Disease
Section on Neurology and Psychiatry
Committee on Surgical Procedures,
Medical Service
- April 15 Committee on Medical Care
- April 18 Annual Lecture Series II
- April 19 Subcommittee on Tuberculosis
D. C. Medical Technicians
- April 20 D. C. Rheumatism Society
- April 22 Lay Society of the Diabetes Association
of D. C.
- April 23 Washington Psychoanalytic Society
- April 25 Annual Lecture Series III
- April 26 Executive Board
Subcommittee on Mental Health
Section on General Practice
- April 27 Scientific Meeting of Society
Section on Dermatology and Syphilology
- April 29 Committee on Public Health
- April 30 Orientation Lecture I

which has committees in 47 states, had been endorsed each year by the American Medical Association. It was never endorsed by the District Medical Society.

The decision to disband, according to a statement signed by E. H. Cary, Chairman of the Board of

Trustees, was taken at a meeting in Chicago, April 10. Justification for its existence was expressed in the following excerpt from that statement: "The [educational] program as planned and now being carried on by the AMA represents the fulfillment of the objectives for which the National Physicians Committee was created and toward which it has been working."

The American Academy of Neurology has been established in order to further and encourage the practice of clinical neurology and to stimulate teaching and research in neurology and allied sciences. The membership at present is about 500. Its first business meeting was held in Chicago in June 1948; the first scientific meeting will be held at the French Lick Springs Hotel, French Lick Springs, Indiana, June 1, 2 and 3.

Active membership in the Academy is open to every physician who has been certified in neurology or in both neurology and psychiatry. There is also a junior membership for those awaiting certification in neurology, and associate membership for those whose interests are in fields related to neurology.

Dr. A. B. Baker, of Minneapolis, is President; Dr. Pearce Bailey, Washington, D. C., Vice President; and Dr. Joe R. Brown, of Minneapolis, Secretary-treasurer.

The first **Annual Meeting of Medical Service of the District of Columbia** was held in the Medical Society's auditorium, April 6.

The meeting was addressed by Dr. G. Halsey Hunt, a member of the Board of Trustees of MEDICAL SERVICE, representing the United States Public Health Service. Dr. Hunt spoke on "Prepayment Plans for Medical Care: History and Present Status." Dr. Raymond T. Holden, also a member of the Board of Trustees, described the "Origin of Medical Service," and Dr. Herbert P. Ramsey discussed the AMA's educational program. Dr. Frank D. Costenbader, President and Chairman of the Board of Trustees, presented the Board's first report.

Election of three trustees, whose terms of office had expired, followed the program. Dr. Hunt was elected to succeed himself. Two new trustees were chosen: Dr. Don Johnson to succeed Dr. Holden,

who did not seek reelection, and Dr. Daniel L. Seckinger to succeed Dr. George C. Ruhland, who is retiring as Health Officer this year.

The Medical Society's **Annual Lecture Series**, held on three successive Monday evenings, April 11, 18 and 25, was well attended. The topic presented this year was Viral and Rickettsial Diseases, with the following subjects and speakers:

April 11 "Introduction to Virology," CHARLES ARMSTRONG, M.D., Medical Director, U.S. Public Health Service

April 18 "Rickettsial Diseases in the United States," R. J. HEUBNER, M.D., Chief, Rickettsial Unit, Laboratory of Infectious Diseases, National Institutes of Health

"Viruses Causing Respiratory Diseases," DORLAND J. DAVIS, M.D., Chief, Section on Respiratory Virus Research, National Institutes of Health

April 25 "Some Practical Considerations in the Diagnosis and Management of Viral and Rickettsial Diseases," T. F. McNAIR SCOTT, M.D., Research Professor of Pediatrics, University of Pennsylvania

"Use of the Newer Antibiotics in the Treatment of Viral and Rickettsial Diseases," JOSEPH E. SMADEL, M.D., Scientific Director, Department of Virus and Rickettsial Diseases, Army Medical Department, Research and Graduate School

The Annual Lecture Series is sponsored by the Medical Society through its Committee on Postgraduate Education. The Chairman of the Committee this year is Dr. Clayton B. Ethridge. The other members are Dr. Edgar W. Davis, Vice Chairman, and Drs. E. Osmun Barr, Roy Hertz, Z. M. Lebensohn, Lloyd H. Mousel, John A. Reisinger and LeRoy L. Sawyer.

On **House Officers' Night**, March 23, papers prepared by house officers in competition for awards were read by the essayists before members of the District Medical Society. Dr. Francis A. Parrett, Jr., Resident in Surgery at Providence Hospital, received first award for his paper on "Cancer of the Colon and Rectum." Dr. Milton B. Rubin, Intern in Pediatrics, and Dr. Adrian Recinos, Jr., Chief Resident in Pediatrics, both of Children's Hospital, were given second award for their paper on "Ingestion of Poisons in Children." The paper selected for third award, "Cysts of the Pancreas and Their Surgical Management," was prepared by Dr. Cornelius P. Frey, Chief Resident in Surgery,

and Dr. Melvin G. Alper, Intern in Surgery, of the Central Dispensary and Emergency Hospital.

Dr. William M. Ballinger, Chairman of the Executive Board, presented checks to the house officers in the amounts of \$50, \$30 and \$20. The judges who selected the winning essays were Drs. Duane C. Richtmeyer, Matthew White Perry and Henry L. Darner.

Surgeon General Leonard A. Scheele, of the U. S. Public Health Service, announces the establishment of a **National Institute of Mental Health**, which will continue the program formerly carried out by the Division of Mental Hygiene in the administration of the Mental Health Act of 1946. This program is specifically directed toward gaining more knowledge of the cause, prevention and control of mental illness, the training of personnel, and developing community mental health facilities.

The new Institute, which was authorized by the 79th Congress, has been created in the National Institutes of Health, research branch of USPHS. Dr. Robert H. Felix, Chief of the Division of Mental Hygiene since 1944, has been appointed Director of the new Institute, and the Division of Mental Hygiene has been abolished. Dr. Felix is a diplomate of the American Board of Psychiatry and Neurology, and a Fellow of the American Medical Association, the American College of Physicians and the American Psychiatric Association.

Temporarily, headquarters of the National Institute of Mental Health will be located in the Federal Security Building, Washington, D. C. Transfer will be made to the National Institutes of Health at Bethesda as soon as new buildings, now under construction, are completed.

At the meeting of the **Executive Board**, April 4, the name of the Committee on Emergency Medical Care, of which Dr. A. Clagett Gray is Chairman, was changed to Committee on Emergency Medical Service.

Seven physicians were added to the Committee on Public Relations, namely, Drs. Theodore J. Abernethy, Walter H. Gerwig, Jr., Hugh H. Hussey, Paul Kiernan, Jed W. Pearson, Jr., R. Lee Spire, and J. Ross Veal.

At the February meeting of the Board, approval was given to the organization of the new Committee

on Medical Ethics and Deportment as proposed by Mr. H. Mason Welch, Counsel for the U.S. Fidelity and Guaranty Company, and Mr. Warren E. Magee, the Society's legal counsel.

Dr. Arthur C. Christie was appointed a member of the Board of Trustees of Group Hospitalization, Inc. to succeed himself for a five-year term beginning March 15, 1949. Also appointed to succeed himself was Theodore Wiprud, as the Society's representative to the AMA's National Conference of Medical Society Officers.

Dr. Robert J. Coffey, General Chairman for the 20th ANNUAL SCIENTIFIC ASSEMBLY, had submitted to President Minor appointees for committee chairmen. These met with the Board's approval. They are as follows:

Program: Dr. Stephen W. Nealon, Jr.

Scientific Exhibits: Dr. Henry A. Grennan

Public Health Exhibit: Dr. Robert C. Rush

Attendance: Dr. Leonard T. Peterson

Special Exhibit: Dr. William J. Cusack

Radio, Television and Motion Pictures: Dr. A. F. Castro

Public Meeting: Dr. Paul F. Dickens

Social Affairs: Dr. A. Magruder MacDonald

The Conference of Physicians' Secretaries, sponsored by the District Medical Society, was received with considerable enthusiasm by 170 secretaries who attended in spite of inclement weather. Dr. John Minor, President of the Medical Society, spoke a few brief words of welcome.

The first part of the program was devoted to a presentation of the history and functioning of the Medical Society itself. Mr. Theodore Wiprud, Secretary of the Society, was Moderator. The program opened with an address by Dr. Raymond T. Holden, Past President of the Society, on the "Organization and Development of the Medical Society." "Medical Bureau Service" was described by Mr. J. Richard Connelly, Assistant Secretary of the Society, and "The Society's Medical Journal" by Miss A. Louise Eckburg, Assistant Editor of the *MEDICAL ANNALS OF THE DISTRICT OF COLUMBIA*. Mr. Wiprud closed the first period by relating other services which the Society renders to its members and the type of information which is available to the general public.

The second half of the program was turned over

to MEDICAL SERVICE OF THE DISTRICT OF COLUMBIA. Dr. Frank D. Costenbader, President of MEDICAL SERVICE, spoke on "Its Objectives and Future." Two officials of Group Hospitalization, Inc., which administers MEDICAL SERVICE, were present to speak on "Administrative Problems of Interest to Doctors' Secretaries." They were Mr. H. J. Swink, Assistant Director, and Mr. Arthur B. Carpenter, Supervisor of the Claims Department. Dr. A. Clagett Gray, Medical Advisor to both MEDICAL SERVICE and Group Hospitalization, Inc., was on hand to answer questions.

Secretaries who were unable to attend and interested physicians may purchase the proceedings of this meeting for \$1.00.

A new film, entitled "**Cancer: The Problem of Early Diagnosis**," is now available to the medical profession through more than 50 state and regional distributing points.

Its co-sponsors, the American Cancer Society and the National Cancer Institute of the U. S. Public Health Service, are making the film available for single showings through state Cancer Society offices, state health departments, and four regional offices of Association Films in New York City, Chicago, Dallas and San Francisco. Physicians and medical organizations in and near Washington, D.C., may borrow the film from the Cancer Reports Section of the National Cancer Institute at Bethesda, Md., telephone Oliver 1400, Ext. 659.

This film, the first in a series of six to be released on this subject, is designed particularly for general practitioners and emphasizes early diagnosis and treatment. It has the approval of the AMA's Committee on Medical Motion Pictures.

Prints of the film may also be purchased from Audio Productions, Inc., 630 Ninth Avenue, New York 19, N. Y., at a cost of \$150 each.

Certificates are now ready for mailing to former medical officers who served during the War with the designation as **Flight Surgeons**. The certificates, which are suitable for framing, indicate that the recipient was graduated from the Aviation Medical Examiner's Course given at the U. S. Air Force School of Aviation Medicine, Randolph Air Force Base, Texas. Those who are eligible to receive the certificates may secure them by writing direct to

The Air Surgeon, Headquarters, U. S. Air Force, Washington 25, D. C.

The National Committee for Chile has opened an office in Washington to collect material to be sent to the Medical School at the University of Chile which recently burned to the ground, completely destroying the library.

Any physician or organization having recent editions of medical books or sets of journals which they would like to contribute for this purpose should telephone Mr. Edward Heiliger at the Library of Congress, National 2722, Extension 527, and the material will be called for; or the books and journals may be delivered to Room 318, Library of Congress.

Renewal of licenses by registration varies in different states. The Secretary of the Medical Society has recently been advised that "all persons in active practice of medicine in the state of Virginia are required to renew their licenses by registration with the payment of a fee of \$1.00 annually."

In Maryland there is no annual registration of physicians and no law requiring such registration is contemplated at this time. There is, therefore, no registration fee.

The New York State Medical Practice Act requires all physicians in active practice to register biennially and to pay a \$4.00 fee at that time.

George Washington University Hospital was presented with its first iron lung, a new type of Emerson respirator, April 7, by the District of Columbia Chapter of the National Foundation for Infantile Paralysis. The respirator, which cost \$1,200, is equipped with a plastic dome which permits the administering of positive pressure in the dome to assist the patient in breathing when it becomes desirable to discontinue pressure in the large chamber in which the body is normally enclosed.

Representing the District Chapter of the Foundation at the ceremonies were Mr. Elwood H. Seal, Chairman of the District Chapter, Mr. Ford E. Young, Vice Chairman, and Dr. Julius Neviasser, a member of the Medical Advisory Committee. Dr. Walter A. Bloedorn, Dean of the School of Medicine and Medical Director of the Hospital, accepted the gift for the University.

Dr. Bernardo Houssay, of Buenos Aires, winner of the 1947 Nobel Prize in medicine, addressed the **Washington Academy of Medicine**, March 11, on "The Unsolved Problem of Diabetes." He was elected to honorary membership in the Academy.

The new **Section on Dermatology and Syphilology** held a meeting in the Medical Society's library, March 23, for the purpose of adopting by-laws and electing officers. The new officers are:

Dr. Henry H. Hazen, *Chairman*; Dr. Frank J. Eichenlaub, *Vice Chairman*; Dr. Naomi M. Kanof, *Secretary-Treasurer*.

Members of the **Women's Medical Society** were guests of the Women's Bar Association at the Raleigh Hotel on April 5. Four medico-legal cases were presented for panel discussion.

Guest speaker at the first meeting of the **Washington Psychiatric Society**, April 4, was Dr. William C. Menninger, head of the Menninger Foundation at Topeka, Kansas, and President of the American Psychiatric Association. The meeting, which was held in the Medical Society's auditorium, was attended by about 200 physicians.

The sixth meeting of the **George Washington University Medical Society** was held, April 16. Dr. Chris P. Segard, Medical Director, Wisconsin Alumni Research Foundation, presented the topic for the evening's scientific program: "Anticoagulants with Special Reference to the Use of Dicumarol and Prothrombin Determinations." The viewpoint of the specialists was expressed by each of the following in the discussion which followed Dr. Segard's presentation: Dr. J. W. Latimer, Clinical Instructor in Medicine; Dr. Duane C. Richtmeyer, Clinical Instructor in Surgery; and Dr. J. Keith Cromer, Clinical Instructor in Obstetrics and Gynecology, all from the George Washington University School of Medicine; and Dr. O. Benwood Hunter, Jr., Director of the Hematology Laboratory, Georgetown University School of Medicine.

The **Registered X-ray Technicians of Washington** held a meeting at Pierce Hall, April 12, to which were invited members of the Maryland Society of X-ray Technicians and Radiologists of the District.

The topic presented was "The Role of the X-ray Technician in an Atomic World." A color and sound movie, "Operation Crossroads," prepared by the United States Navy, was shown. Speakers were Mr. D. Holaday of the Industrial Hygiene Division of the U. S. Public Health Service; Dr. S. Taylor, of the Division of Biology and Medicine of the Atomic Energy Commission; and Lt. Comdr. William C. Mulry, M. C., U. S. Navy.

With April designated as **Cancer Month**, the **American Cancer Society** launched its annual appeal for funds at Constitution Hall, March 31. The national goal is \$14,500,000 of which the District's share is set at a minimum of \$200,000. Officials stated that of every dollar contributed, approximately 60 cents remains in the District or state where it is collected, about 25 cents is used for national research, and 15 cents goes to the Society for administrative and educational programs.

Among the speakers at the rally were: Surgeon General Leonard A. Scheele, of the USPHS; Mrs. Oveta Culp Hobby, National Vice Chairman of the 1949 Campaign; Eric Johnston, President of the Motion Picture Association of America and Chairman of the Society's Board; Mefford R. Runyon, Executive Vice President of the Society; Dr. John R. Heller, Jr., Director of the National Cancer Institute; Dr. Harry H. Kerr, President of the District Branch of the Society; Edward F. Bartelt, Assistant Treasury Secretary and the Society's National Chairman for Federal Employees; Elmer Bobst, National Chairman of the Campaign Committee; E. Cleveland Giddings, Vice President of the Capital Transit Company and Chairman of the 1949 District Division Campaign.

Interspersing the addresses was entertainment, which included a number of songs by the Washington Male Chorus, directed by Dr. Robert H. Harmon.

Year-round use of the address "CANCER" has been granted to the **American Cancer Society** by the United States Post Office Department. Under this arrangement all contributions for the 1949 cancer fund addressed "CANCER, Washington, D. C." will be forwarded to the campaign headquarters at 1508 H Street, N.W. Inquiries for literature and other information may also be so addressed.

The American Academy of Pediatrics celebrated the publication of the report on its national study of child health services by holding a banquet at the Hotel Roosevelt in New York City, April 2. The study represents an expenditure of a million dollars, and required three years to complete.

Presiding at the banquet was **Dr. Joseph S. Wall**, Past President of the Academy. He introduced the following speakers: Dr. Warren Sisson, of Boston, President of the Academy; Dr. Thomas Parran, of the University of Pittsburgh, former Surgeon General of the U. S. Public Health Service; Dr. R. L. Sensenich, President of the American Medical Association; and Mr. Winthrop Rockefeller, Chairman of the Board of New York University-Bellevue Hospital Medical Center.

Dr. Martha M. Eliot, Associate Chief of the Children's Bureau, has been appointed Assistant Director General of the **World Health Organization**, with headquarters in Geneva, Switzerland. The appointment was made by Dr. Brock Chisholm, Director General of the WHO.

In accepting the appointment, Dr. Eliot terminates 25 years of service with the Children's Bureau. She will be succeeded in that post, June 1, by Dr. Leona Baumgartner, Assistant Commissioner of Health of New York City, who has been granted a six months' leave of absence.

Dr. Eliot, a native of Dorchester, Mass., wrote one of the early revisions of the Government booklet, "Infant Care," which has been used by millions of parents. Appointed Assistant Chief of the Children's Bureau in 1934, she was named Associate Chief in 1941.

She was a delegate to the first World Health Assembly in Geneva last year. In January she attended the Geneva meeting of the WHO's expert committee on maternal and child health. She is First Vice President of the National Conference of Social Work and Past President of the American Public Health Association. She is a member of many other scientific organizations, including the American Medical Association and the American Academy of Pediatrics.

Dr. Edward J. Stieglitz gave the keynote address, "Health in an Aging Population," at the dedication

of the new research laboratories of Smith, Kline and French Laboratories, in Philadelphia, March 16.

Dr. Stieglitz addressed a number of other medical groups during April and May on gerontological subjects. They were: April 1, Eastern States Health Education Conference, New York Academy of Medicine, "Controllable Factors in Aging"; April 11, Institute on the Problems of Aging, Washington University, St. Louis, "Physical Aspects of Aging"; May 5, Philadelphia County Medical Society, "Age and Work Competence"; and May 11, Annual Meeting of the Chicago Nutrition Society, Chicago, "Nutrition in Senescence."

Dr. Stieglitz also lectured and directed a Panel on the Problems of Senescence before the Ohio State Conference at Columbia, May 12 and 13.

Dr. John A. Reed participated with Drs. Elliott P. Joslin, Charles H. Best and Joseph H. Barach in a Seminar on Diabetes Mellitus held at the George Washington Hotel, Jacksonville, Florida, March 28 and 29. The program was presented by the Department of Medicine of the Graduate School of the University of Florida in coöperation with the Florida Medical Association, the Clinical Society of the Diabetes Association of Duval County, and the Florida State Board of Health.

Dr. Reed presented three papers. They were: "Philosophy of the Diabetic"; "The Medical Management of the Surgical Diabetic"; and "The Diagnosis of Diabetes." Dr. Reed, retiring President of the Diabetes Association of the District of Columbia, is Assistant Clinical Professor of Medicine at George Washington University School of Medicine. The other speakers are also well known to District physicians. Two of them, Dr. Best and Dr. Barach, participated in a panel discussion on diabetes in Washington early in January.

At the meeting of the **American College of Physicians** in New York, March 28 to April 1, **Dr. Wallace M. Yater** was elected a Regent of the College. For many years Dr. Yater has served as Governor of the College for the District of Columbia. **Dr. John Minor**, President of the District Medical Society, was elected to succeed Dr. Yater in this office.

Dr. Brian Blades, Professor of Surgery at George Washington University School of Medicine, de-

livered the annual address to alumni of the Washington University (St. Louis) Medical School, April 8. Dr. Blades spoke on arterio-venous fistulas, dealing with the removal of arteries and veins which through accident or birth communicate with each other.

Dr. Harry H. Kerr, President of the District Branch of the American Cancer Society, was guest speaker on the *Evening Star's* WMAL-TV program, April 7. This was a television program entitled "Conquering Cancer" which featured laboratory mice from the National Cancer Institute of the USPHS. By means of a microscope, Dr. Dean Burk, biochemist at the Institute, showed the development of growth in animal tissue. Dr. William B. Ober, pathologist with the Institute, commented on slides showing human cancerous tissues.

Dr. Kerr stressed the importance of early diagnosis of the disease, and pointed out that there has been a steady decrease in deaths from cancer because of research and early treatment.

Dr. Maurice H. Friedman was the guest speaker, March 7, before the Physicians' Scientific Society at the University Club in New York City. This is a group of about 60 physicians, representing a cross section of the metropolitan profession, who meet quarterly. About 45 members were present to hear Dr. Friedman's address on "Statistical Analysis of the Ewing Report."

Dr. Frank D. Costenbader, President of MEDICAL SERVICE, and **Theodore Wiprud**, Secretary, attended the Annual Blue Cross-Blue Shield Conference in Hollywood Beach, Florida, April 18-21, as official delegates of the SERVICE.

Dr. Oscar B. Hunter took part in the Fourth Annual District of Columbia Traffic Court Conference, April 21. Dr. Hunter discussed the use of chemical-scientific tests for alcoholism in traffic cases where intoxication is suspected. The Conference was arranged by the District Bar Association, the Commissioners' Traffic Advisory Board, and the Washington Junior Chamber of Commerce.

Dr. John Minor, President of the District Medical Society, and **Dr. Paul O'Donnell**, President of the Washington Orthopedic Club, participated

in the Spring Conference on Cerebral Palsy, sponsored by the District Society for Crippled Children, April 13, at the Shoreham Hotel. Dr. O'Donnell presided at the afternoon session; Dr. Minor extended greetings from the Medical Society.

Dr. O'Donnell appeared on a television program over WMAL, March 31, with Dr. Winthrop M. Phelps. Five clinical cases were presented during the program, which was held under the auspices of the Society for Crippled Children. Dr. Phelps is Medical Director of the Children's Rehabilitation Institute, Cockeysville, Md.

Dr. Norvell Belt, practicing urologist in the District of Columbia for many years, has moved to Frederick, Maryland, and has opened an office in the Professional Building.

The Medical and Chirurgical Faculty of the State of Maryland held its 151st Annual Meeting in Baltimore, April 25, 26 and 27. **Dr. W. LeRoy Dunn** was Moderator for a Panel Discussion on Neoplasms of the Chest, April 27. Participating in the Panel was **Dr. Edgar W. Davis**, Professor of Thoracic Surgery of Georgetown University School of Medicine, who discussed intrapulmonary neoplasms.

Dr. Winfred Overholser addressed the Missouri Medical Society in Kansas City on "Some Contributions of Psychiatry to General Medicine." The meeting was held on March 28.

Theodore Wiprud, Secretary of the Medical Society, addressed the senior students of Howard University School of Medicine on two mornings, April 5 and 12. He spoke on "Physicians' Records" and "Proper Handling of Patients' Accounts."

Mr. Wiprud addressed the resident staff of Suburban Hospital at an evening meeting, April 5, on "Physicians' Records."

Dr. Samuel M. Dodek has been elected Vice President for the District of Columbia of the General Alumni Association of the Jefferson Medical College. Dr. Dodek graduated with the class of 1927.

Dr. Samuel M. Becker addressed the staff meeting of the Alton Road Hospital, Miami Beach,

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. Most of these engagements were filled through the Society's Speakers Bureau, which is headed by Dr. James A. Gannon.

Date	Speaker	Subject or Title	Organization
March 25	Dr. Edward J. Stieglitz	"How to Grow Old Usefully and Happily"	Home Board, All Souls' Unitarian Church
March 28	Dr. Frank D. Costenbader	"Vision and Glasses"	Parent-Teachers Association of George Mason School
March 30	Dr. S. Ross Taggart	"Juvenile Delinquency"	Optimist Club
April 12	Dr. Dorothy Donley-Dowd	"Building Emotional Health"	Mothers' Study Group of Naylor Gardens
April 13	Dr. Leonard M. Dub	"Building Emotional Health"	Parent-Teachers Association of H. D. Cook School
April 18	Dr. James A. Gannon	"Medical Superstitions"	Men's Group of New York Avenue Presbyterian Church
April 20	Dr. Winfred Overholser	"What Is Mental Health?"	Washington Wellesley Club

Florida, March 17. His subject dealt with medical testimony in court.

Mr. Thomas H. Evans was appointed Director of the Washington Regional Blood Center of the American Red Cross, effective April 16. Mr. Evans has been Assistant Center Director since August, 1948. The continued growth of the Blood Program made it necessary that it be given full-time administrative direction. Dr. Kenneth R. Nelson continues as Physician-in-charge or Technical Director.

Dr. Manning W. Alden, formerly pathologist at Georgetown University Hospital, is now laboratory chief and pathologist of Gallinger Municipal Hospital, succeeding Dr. A. Ralph Monaco, who resigned to enter private practice. Dr. Alden, a graduate of George Washington University School of Medicine in 1942, served in the Navy for four years. On his return to civilian life, he served for one year in the department of pathology of Garfield Hospital and joined the Georgetown staff last July.

Mr. Victor F. Ludewig, of Rochester, Minn., the new Superintendent of George Washington University Hospital, took over his new duties, April 15. Mr. Ludewig is a graduate of the University of California's College of Commerce and received

his B. S. degree in hotel administration from Cornell University. Since 1934 he has been associated with the Kahler Corporation, which owns and operates three hospitals, a school of nursing, three hotels, and various other facilities in Rochester. The Corporation is indirectly affiliated with the Mayo Clinic; its hospitals are under the medical and surgical supervision of the Clinic and are staffed by Clinic physicians. Mr. Ludewig has held the position of Assistant to the President and General Manager of the Corporation.

Mr. Leo G. Schmelzer accepted the position of Administrator of Garfield Hospital, effective April 1. Mr. Schmelzer resigned recently as Superintendent of George Washington University Hospital to accept a hospital planning post with the Public Health Service. The USPHS relinquished its claim to Mr. Schmelzer's services in order for him to accept the Garfield appointment.

Dr. James A. Shannon, Medical Director of the Squibb Institute for Medical Research, New Brunswick, N. J., since April 1, 1946, has been appointed to the staff of the National Heart Institute as Associate Director in charge of research. During the War Dr. Shannon took an active part in conducting malaria research for the National Research Council and was a consultant on tropical diseases to the Secretary of War.

Dr. Jack E. White, Chief Resident in Surgery at Freedmen's Hospital, has been awarded a \$2,500 fellowship by the American Cancer Society in order to finance a year's special study at New York's Memorial Hospital for Cancer and Allied Diseases. The award was presented to Dr. White by Dr. Harry H. Kerr, President of the Society's District Division. It is the first such appointment to a Negro physician. Dr. White is a graduate of

Howard University School of Medicine, receiving his degree in 1944.

Dr. R. F. McGough is the new Health Officer for Alexandria, Va. He has held a similar position in New Philadelphia, Ohio, and previously was a member of the Virginia State Health Department. He succeeds Dr. William Lewis Schafer, who resigned the position last fall.

CORRESPONDENCE

REGINA, SASKATCHEWAN, March 21, 1949

MR. THEODORE WIPRUD

SECRETARY, MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA

1718 M STREET, N.W.

WASHINGTON, D. C., U.S.A.

DEAR MR. WIPRUD:

As a member of the District Medical Society temporarily resident in Canada, I cannot help but comment on the quotation from the article by Graham L. Davis in the *Washington Post* for January 2nd which was given on page 91 of the February issue of the *Medical Annals of the District of Columbia*. You will recall that Mr. Davis indicated that the Dominion of Canada is quite uncertain as to the necessity for introducing compulsory health insurance and that, in any case, such a development lies in the rather distant future. I do not believe that this interpretation of events by Mr. Davis is valid and I would like to give you my reasons for this statement.

In announcing the program of Dominion Grants for various health purposes on May 14, 1948, the Prime Minister of Canada stated: "These health measures also represent first stages in the development of a comprehensive Health Insurance Plan for all Canada." Four days later, the Minister of National Health and Welfare stated in a public address that "When the present program is well under way, it will then be possible to proceed with the implementation of a national plan for hospital and medical care insurance." Later in the same speech, he said: "The great three point National Health Program of the Federal Government that I have outlined does not indicate the immediate beginning of a National Hospital and Medical Care Insurance Plan, but it does clear the way for that great eventuality. Since 1945 the Department of National Health and Welfare has had its own officers and outside specialists working on foundation plans for the formulation of health insurance legislation."

These statements were made by officials of the highest authority in the present Liberal administration. What stand is taken by other major political parties in Canada? Mr. George Drew, Leader of the Opposition in the House of Commons, and head of a revitalized Progressive Conservative party, at a Press conference held on February 25th described as "inexcusable" the Federal Government's delay in dealing with questions of health insurance and social security. The third major political party in Canada, the Coöperative Commonwealth Federation, which is the official opposition in three provinces and the Government party here in Saskatchewan, has gone on record time and again as favouring the immediate institution of nation-wide, universal-coverage health insurance.

Another important factor, which cannot be overlooked, is the fact that the Canadian Medical Association has approved compulsory health insurance in principle.

The criticism by Graham Davis of the compulsory hospitalization program in Saskatchewan opens up too large a subject to deal with adequately in this letter. I might simply say that this program is clearly going farther toward meeting true hospitalization needs than any other hospitalization program in North America, that it is almost universally popular throughout the province, that serious hospital operating deficits are a thing of the past here, and that the Province of British Columbia, under a Liberal-Progressive Conservative coalition, has paid us the sincere compliment of initiating a similar program on January 1, 1949. The fact is that compulsory health insurance has already begun to take root in Canada, and its growth may be anticipated to be progressive and probably quite rapid.

Sincerely yours,

F. D. MOTT, M.D.

Chairman, Health Services
Planning Commission

BOOK REVIEWS

Manual of Veterinary Bacteriology, 5th ed. RAYMOND A. KELSER, D.V.M., A.M., PH.D., Brigadier General, United States Army, Retired; Professor of Bacteriology and Dean of the Faculty School of Veterinary Medicine, University of Pennsylvania, Philadelphia, AND HARRY W. SCHOENING, V.M.D., In Charge, Pathological Division, Bureau of Animal Industry, U. S. Department of Agriculture, Washington, D. C. Price, \$6.50. Pp. 767. Baltimore: Williams & Wilkins, 1948.

This book has served as a standard textbook in veterinary bacteriology since the first edition was published in June, 1927. The reader will find a complete yet not too lengthy description of all of the infectious agents of bacterial or viral nature which are of importance in domestic animals. Many of these infectious agents are of considerable interest to the medical reader because of their transmissibility to man.

In the preface to this fifth edition it is stated: "In the elucidation, control and prevention of animal diseases veterinary bacteriology has played a major role. . . Foods of animal origin—meats, meat food and dairy products—constitute a vital part of the over-all food supply. Thus, during the critical war years, it was evident that the maintenance of the health of our vast herds and flocks was of prime importance if we were to meet our obligations for food. That we succeeded in maintaining the health of our live stock, preventing widespread outbreaks of disease among them and producing the food required, is now a matter of record." The application of veterinary bacteriology has played a large part in this impressive record.

In preparing this edition the authors have revised and modernized rather large parts of the text, although the general format and arrangements of previous editions have been maintained. The text includes chapters on morphology, physiology and classification of bacteria, preparation of culture media, the artificial propagation of bacteria, and the microscopic study of bacteria, which are of particular value to the student. There is also a chapter on bacterial variation, as well as theories of infection and immunity. The rest of the book is devoted to descriptions of the morphology, staining and cultural characteristics of various organisms.

In each instance a brief description of the general features of the disease caused by each organism is also very valuable. Although not in exact conformity with the title of the book, a section on pathogenic protozoa is included. Each of the disease-producing filtrable viruses of importance in domestic animals is discussed in a separate chapter.

The text is printed on good quality paper and the illustrations, although not numerous, are of good quality.

This book should be a valuable addition to the reference library of veterinarians, physicians and bacteriologists.

T. C. JONES, D.V.M.

*Major, Veterinary Corps,
Army Institute of Pathology*

Clinical Aspects and Treatment of Surgical Infections. FRANK LAMONT MELENEY, M.D., F.A.C.S., Associate Professor of Clinical Surgery, College of Physicians and Surgeons, Columbia University; Associate Visiting Surgeon, Presbyterian Hospital, New York City, with a Foreword by ALLEN O. WHIPPLE, M.D. Price, \$12.00. Pp. 840, with 287 figures. Philadelphia: Saunders, 1949.

This book represents the finest type of medical literature available. It is written by a man who has actually established the importance of bacteriology in surgery and it represents a long and intimate experience over a period of 25 years. The development of the present concept of surgical infections and their management both before and during the War is closely related to the numerous contributions made by Dr. Meleney, as well as the men he has trained.

This volume is systematically arranged so as to cover all types of surgical infections in various areas, organs, and tissues of the body. It is replete with case reports, diagrams, charts, and photographs from the author's own experience.

Noteworthy contributions are present in Chapter One by Dr. John S. Lockwood, on the physiologic considerations of surgical infections. Dr. Harold D. Harvey has written a section on infections of the peritoneum. A discussion on war wounds, both in combat and base hospitals, has been contributed by Dr. Alfred B. Longacre and Dr. William R. Sandusky. Each chapter dealing with a different area is so arranged as to include anatomic, pathologic, physiologic, clinical, and treatment sections. This plan gives the book a simple uniformity which makes it easy for the reader to obtain desired information. Each chapter is well documented with references which allow for further study of any particular phase described in the book.

Experiences with both the sulfonamide group of drugs and antibiotics are included throughout the text. It is fortunate for the reader that the author has gained his knowledge over a period which began before the use of the latter two agents. In this way an over-all evaluation of modern methods is presented.

This book fills a heartfelt need in the library of every surgeon and physician.

JACOB J. WEINSTEIN, M.D.

**JOSEPH PARDOE SHEARER, B.S.,
M.S., M.D., F.A.C.S.
(1894-1949)**

Dr. Joseph P. Shearer, well known Washington surgeon, died April 4, 1949, in Doctors Hospital, following a brief illness. He was Associate Professor of Clinical Surgery at Georgetown University School of Medicine, Chief of Surgery at Prince Georges General Hospital, and on the attending staff of most Washington hospitals.

Dr. Shearer was born in Milton, Pa., September 23, 1894, the son of Charles R. and Mary Jane Shearer. After attending high schools at Montandon, Pa., he entered Bucknell University, receiving his B.S. degree in 1913 and M.S. degree in 1914. Three years later, 1917, he graduated from Johns Hopkins Medical School, and interned for a year at Johns Hopkins Hospital. His internship was interrupted by service in the Medical Corps of the U. S. Army during World War I.

From 1919 to 1920 he was Assistant Surgeon at Geisinger Memorial Hospital, Danville, Pa., and from 1921 to 1922, Assistant Surgeon at Florence Infirmary, Florence, S. C. He began private practice in the District of Columbia in 1922, specializing in surgery. His offices were at 1746 K Street, N.W.; his home at 3024 44th Street, N.W.

Dr. Shearer was elected to Active membership in the District Medical Society in 1923. He was a Fellow of the American Medical Association and the American College of Surgeons. He held membership in the Washington Academy of Surgery, the Southern Medical Association, the National Gastroenterological Association, Medical Society of St. Elizabeths Hospital, Prince Georges Medical Society, and the Suburban Hospital Association. He was a member of the clinical and teaching staff of Doctors Hospital.

He was also affiliated with St. Albans Episcopal Church, Almas Temple, Chevy Chase Masonic Lodge, and the Columbia Country Club.

Surviving are his wife, Mrs. O'Neill Byrd Shearer; a son, Joseph Byrd Shearer, of Buffalo, New York; two daughters, Mrs. Charles M. Echeverria, Jr., of Milford, Conn., and Miss Nancy Shearer, a student nurse at Johns Hopkins University Hospital; a

brother, Rupert Shearer, of McEwensville, Pa.; and a sister, Mrs. Early Correy, of Milton, Pa.

**MICHAEL PATRICK DE VITO,
B.S.M., M.D.
(1906-1949)**

Dr. Michael P. DeVito, plastic surgeon, was found dead in his hotel bed, April 18, in Pinehurst, N. C., where he had gone for a golfing holiday with several physician-friends. His death was attributed to coronary thrombosis.

Dr. DeVito was an associate of Dr. Robert E. Moran before World War II. He entered the Army in 1942 as Captain in the Medical Corps and was discharged in 1946 as Lieutenant Colonel. As Chief of the Maxillo-facial Department of the 128th Evacuation Hospital, he served in Europe in eight campaigns; for his services he was awarded the Bronze Star.

Upon returning to this country in 1945, he became Chief of the Plastic Department of the Newton D. Baker General Hospital at Martinsburg, West Virginia, and in 1946 was transferred in the same capacity to the O'Reilly General Hospital in Springfield, Mo.

He resumed private practice in Washington in 1946, with offices at 1801 K Street, N.W.

Dr. DeVito was born in Port Reading, New Jersey, February 4, 1906, the son of Joseph and Theresa DeVito. He moved to Asbury Park as a boy and attended schools there. For his medical education he enrolled at the Georgetown University School of Medicine, receiving the degrees of B.S.M. and M.D., both in 1932. The following year he interned at Emergency Hospital, and stayed on for four years, 1933-37, as resident in general surgery.

He was Assistant Professor of Surgery, in Plastic and Reconstructive Surgery, at Georgetown University and a lecturer at Gallinger Municipal Hospital. He was on the staffs of Georgetown, Emergency, Providence, Children's, Gallinger, Suburban and Mount Alto Hospitals.

An active member of the District Medical Society since 1938, he was also a Fellow of the American Medical Association, and a diplomate of the American Board of Plastic Surgery.

Dr. DeVito resided at 4520 MacArthur Boule-

vard. He is survived by a daughter, Patricia Ann, and his mother, Mrs. Theresa DeVito, both of Bradley Beach, N. J. He also leaves three brothers, Drs. Anthony and Alfred DeVito and Dominic DeVito, and two sisters, Mrs. Mary DeTory and Mrs. Lillian Pacelli, all of Asbury Park and Bradley Beach, N. J.

ALMA FIFE HEATH, M.D.

(1903-1949)

Dr. A. Fife Heath, general practitioner, and an Active member of the Medical Society of the District of Columbia, died April 13, 1949, at National Homeopathic Hospital.

Dr. Heath was a native of Idaho Falls, Idaho, born February 2, 1903, the son of George F. and Mary E. Heath. He attended George Washington University School of Medicine, receiving his medical degree in 1931. He interned at Gallinger Municipal Hospital the following year, and a year later, 1932-33, was resident physician at George Washington Hospital. He went to Philadelphia for postgraduate study in pediatrics in 1940 and in obstetrics and gynecology in 1941.

Private practice in the District of Columbia was begun in 1933. For many years he was Clinical Instructor in Medicine at George Washington University School of Medicine. He was a member of the Board of Directors of National Homeopathic Hospital. His office was maintained at 1833 Monroe Street, N.E.

Dr. Heath became a member of the District Medical Society in 1934. He was a Fellow of the American Medical Association and a member of the George Washington University Medical Society. He was also a member of the East Gate Lions Club and the Burroughs Citizens' Association, having served as President of both organizations.

He was devoted to the Mormon religion and very active in the work of the Church of Jesus Christ of Latter-Day Saints.

Surviving are his wife, Mrs. Esther Goodpasture Heath, and two small sons, Richard Carroll, aged four years, and Daniel Fife, aged two years, who reside at their home, 4307 Sheridan Street, University Park, Md. He also leaves four sisters in Utah: Mrs. P. J. Sappington, of Pocatello; Mrs.

Myrtle Chamberlain and Mrs. Edward A. Elg, both of Idaho Falls; and Mrs. Alfred Downs, of Ogden.

NORMAN L. McDIARMID, A.M., M.D., F.A.C.S.

(1879-1949)

Colonel Norman L. McDiarmid, Superintendent of Columbia Hospital for Women since 1940, died April 3, 1949, at Walter Reed General Hospital after an illness of three weeks. Colonel McDiarmid accepted this post upon his retirement from the Army Medical Corps after 30 years of service. In 1944 he was highly praised by Captain Chester Wells, U.S.N., retired, President of the Hospital's Board of Directors, for his efforts in behalf of Columbia Hospital.

Dr. McDiarmid was born in Toronto, Canada, in 1879. He graduated from Bethany College in West Virginia, where his father was President of the College, and continued his studies at the University of Michigan. He received his medical degree from the University of Cincinnati in 1902.

Commissioned First Lieutenant in the Medical Corps in 1908, he served with General Pershing during the Villa campaign along the Mexican border. During World War I he was with the First Division of the American Expeditionary Forces in France. He served overseas in Japan and the Philippines. Prior to his retirement in 1940 he was the Corps Area Surgeon at headquarters, Fourth Corps Area, Atlanta, Georgia.

He was a member of the Medical Association of Georgia, and a Fellow of both the American Medical Association and the American College of Surgeons.

Colonel McDiarmid, who resided in the Superintendent's quarters at the Hospital, leaves a son, Hugh N. McDiarmid, of Vienna, Va., and a sister, Mrs. J. Warren Ritchey, of Cincinnati.

His wife, Mrs. Mary Alice Root McDiarmid, survived her husband only eight days. They were married in 1906. She was a registered nurse, a graduate of the Miami Valley Hospital in Dayton, Ohio. Except during the War, Mrs. McDiarmid had always traveled with her husband; they had been stationed in all parts of the United States, and had lived in many parts of Asia and Europe.

Cancer of Urinary Bladder—Lewis*(Continued from Cancer Bulletin, page 28)***BIBLIOGRAPHY**

1. JEWETT, H. J.: *J. Urol.*, 1943, **49**, 34.
2. JEWETT, H. J., AND CASON, J. F.: *South. M. J.*, 1948, **41**, 158.
3. GOIN, L. S., AND HOFFMAN, E. F.: *Radiology*, 1940, **34**, 205; 1941, **37**, 545.
4. YOUNG, H. H., AND DAVIS, D. M.: *Young's Practice of Urology*. Philadelphia: Saunders, 1927, **1**, 582.
5. COFFEY, R. C.: *Tr. South. S. A.*, 1933, **48**, 51.
6. NESBIT, R. M.: Personal communication.
7. SHACKMAN, R.: *Brit. J. Surg.*, 1947, **35**, 140.
8. SMITH, G. G.: *Surg., Gynec. & Obst.*, 1947, **85**, 221.
9. *Brit. A. Urol. Surgeons*: *Brit. J. Urol.*, 1947, **19**, 144.
10. FERRIS, D. O., AND PRIESTLEY, J. T.: *J. Urol.*, 1948, **60**, 98.
11. JEWETT, H. J., AND LEWIS, E. L.: *Ibid.*, 1948, **60**, 107.
12. KIRWIN, T. J.: *Ibid.*, 1943, **49**, 1.
13. MARSHALL, V. F.: *New York State J. Med.*, 1948, **48**, 875.

Wig Day—Observer*(Continued from page 262)*

dozen wigs, each suited for an occasion. I certainly would not like my golfing wig to be the same as the wig I wore when, say, accepting the Nobel Prize for mischief. Nor do I think that the wig a fellow wears while dancing the tango should be the same wig he wears when pulling weeds out of the garden. I would like a sports wig, a shopping wig, a motoring wig, a wig for reading Book-of-the-Month Club selections, and a wig for use in a jet plane, to name only a few."

Mr. McLemore signs off on an apologetic note because he feels he may have talked too much. "Some people," he says, "will begin to believe that I am only an old wig wag."

T.W.

Washington Physicians of Yesterday—Jaeger*(Continued from page 267)*

He was an associate member of the American College of Physicians, a member of Saint Mark's Episcopal Church, of the Masonic order, and of the Washington Board of Trade; and a director of the Metropolis Building Association.

Along with his practice, he had outside interests and exercised avocational activities: he was a talented singer, a singer before the Lord. From the age of five years until about 1929 he sang in the choir of Saint Mark's Episcopal Church; and later he was a cantor in the choir of the Masonic Mystic Shrine, and a soloist in Washington Cathedral.

On November 10, 1915, Dr. Jaeger married Bessie Steinle, and had an unusually satisfying domestic life. Two of his children, Dr. Dorothy S. Jaeger-Lee and Dr. Henry W. Jaeger (Jr.), are physicians, and engaged in medical practice in Washington.

On October 21, 1937, Dr. Jaeger died suddenly and unexpectedly, bringing him to an untimely end at the height of his career and success. His funeral was attended by a great throng of grieving admirers, a testimony of the gratitude and affection which he had won in the hearts and memories of the multitude of his patients, beneficiaries, and friends. To live the life of an active and faithful physician, like Dr. Jaeger and an innumerable host like him, is a noble achievement.

JOHN B. NICHOLS, M.D.

Report of Medical Service Board*(Continued from page 266)*

factor by allowing your patient to keep available to him the high level of medical skill that he now has, and by allowing him the privilege of paying his medical bills on a basis that he is able to handle. You are the beneficiary by keeping the control of medical planning in the hands of the medical profession where it rightly belongs.

Respectfully submitted,

FRANK D. COSTENBADER, M.D., *Chairman*
BRUCE BAIRD

SIDNEY C. COUSINS, M.D.

HARRY F. DOWLING, M.D.

WM. P. HERBST, JR., M.D.

RAYMOND T. HOLDEN, M.D.

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GEORGE C. RUHLAND, M.D.

W. WARREN SAGER, M.D.

MAURICE A. SELINGER, M.D.

PHILIP M. TALBOTT

THEODORE WIPRUD, *Ex Officio***Membership***(Continued from page 271)*

Franklin D. Hendricks, George Washington University—1946

Morris E. Krucoff, George Washington University—1942

Sidney Lyons, Medical College of Virginia—1941

Stanley H. Steinberg, University of Maryland—1944

Harold T. Yates, University of Virginia—1941

For Associate Membership

Colonel Charles K. Holmes, M.C., U.S.A., University of Minnesota—1917

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A SIMPLE BLOOD VISCOSITY TEST FOR THROMBO-EMBOLISM*†

Preliminary Observations

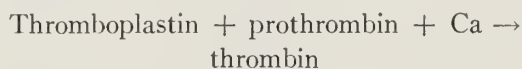
JOHN N. SHADID, M.D.

Washington

THE vital functions of blood are possible only if the blood remains fluid and is circulated through the vascular channels by an active heart. Brief reflection will show that these factors, fluidity, heart action and peripheral vessels, are closely interdependent for optimal circulation. The fluidity of the blood, however, is usually taken for granted and is apt to be ignored in the consideration of cardiovascular diseases. It is the purpose in this report to point out how blood fluidity may vary and to show its practical importance in thrombo-embolic cardiovascular diseases. A simple, bedside test for following variations in blood fluidity and observations resulting from its use will be presented.

Since blood must remain in the circulatory channels to fulfill its purposes, safeguards are provided to prevent its escape. The most important of these safeguards is the ability of the blood to clot when conditions threatening its

loss appear. For the purpose of this discussion, it is not necessary to become embroiled in the details of the coagulation process. Suffice it to say that certain substances are necessary for coagulation to occur and that the fibrin clot results from the following reactions:



These reactions are preceded by a cellular phase in which platelets agglutinate to plug the defect temporarily until the fibrin clot is formed.

Judged by its behavior in vitro, coagulation, once started, proceeds until all the blood is clotted. Obviously, this does not occur normally in the body, where just enough clotting takes place to seal the damage, and the process stops. This control upon coagulation is imposed by an anticoagulation process which is even less clearly understood. The best known physiologic anticoagulant is heparin, which is a complex compound produced by the mast cells of Erlich situated along the finer ramifications of

* From the Department of Vascular Surgery, Central Dispensary and Emergency Hospital.

† Read before the Society, May 11, 1949.

the vascular system. However, all that need be considered are the general facts that there are a coagulation and an anticoagulation mechanism provided in normal blood, the former to clot the blood on proper stimulation, the latter to limit the clotting and help keep the blood fluid.

Anticoagulation probably plays an active role in keeping the blood fluid. This can be inferred from the observation that spontaneous bleeding occurs in certain blood dyscrasias and not infrequently during the use of anticoagulant drugs in thrombo-embolic diseases. Why should this spontaneous bleeding occur? The obvious answer is because normal coagulation is suppressed or altered. And, if bleeding occurs when coagulation is suppressed or altered, it can be assumed that under normal conditions clotting is constantly active, probably in mending the minor damages to the vascular system resulting from the stresses and strains of normal physical activity. It is not difficult to see how thin-walled capillaries and adjacent fine channels can easily be broken down by muscular activity, blows, etc. Then with normal wear and tear constantly stimulating coagulation, the blood would soon be completely congealed were it not for the equally constant activity of anticoagulation. And thus, anticoagulation probably plays the important role in keeping the blood fluid.

How coagulation and anticoagulation interact is not clear, but it is generally agreed that it is a process of neutralization whereby activated coagulation substances are inhibited. A hint as to the general way this interaction occurs can be surmised from some observed facts. It is known that there is relatively little natural anticoagulant in normal blood at any given time. And when heparin is given intravenously its effect lasts only an hour or so depending on the dose and the ability of the kidneys to excrete it. It is thus apparent that a high concentration or accumulation of anticoagulant in the blood is not normally tolerated. It is also known that blood trapped in an occluded vessel *in vivo* will eventually clot as completely as *in vitro* due to

lack of sufficient anticoagulant action. From these facts it seems that the anticoagulation effect is dependent upon blood flow which brings a low but constant concentration of normal anticoagulant against the clotting area and thus gradually suppresses it. In this way it is possible to bring the total amount of circulating blood anticoagulant in contact with a clotting area every minute or two. The anticoagulation system, then, requires continuous production of anticoagulant, because it is constantly being used up and no accumulation of reserve in the blood is tolerated. Coagulation, on the other hand, is not so dependent on immediate replenishment of its substances. Normally developed blood is provided with enough coagulation substances to take care of any usual situation requiring clotting as is evidenced by the fact that any volume of blood can clot completely.

It can be seen from the above observations that in situations requiring considerable and relatively immediate clotting as in surgery, trauma, postpartum and some acute infections when a sudden, great demand is placed upon anticoagulant production, a system not of normal efficiency could fail to meet the demand adequately and thus allow clotting to proceed beyond the usual limits.

Like other antagonistic systems of body physiology, the coagulation-anticoagulation system is liable to hyper- or hypo-activity of either side of the system. Hence it is possible to have hyper- or hypo-coagulation or hyper- or hypo-anticoagulation. Thrombo-embolic diseases fall into the hyper-coagulation or hypo-anticoagulation groups, most likely the latter. In these conditions the clotting response is exaggerated and proceeds beyond the limits necessary for repair. This results from coagulation-anticoagulation imbalance arising from either production derangements or from deficient anticoagulant distribution due to impaired circulation which may be generalized or localized. Generalized impairment of circulation may be due to heart disease or to decreased blood fluidity that

results from increased viscosity as occurs in hyperglycemia, acidosis, dehydration, polycythemia, and other conditions that can be grouped under hyper-coagulation or hypo-anticoagulation. The localized impairment of circulation results from occlusive vascular disease due either to organic obstruction or prolonged vasospasm.

Also, like other physiologic processes, the coagulation-anticoagulation system can compensate any ordinary imbalance in its normal function. Hence, any hypo- or hyper-activity of one side will be compensated by a counter-acting influence so that balance is eventually restored. This tendency probably explains the recoveries, of various durations, in thrombo-embolic diseases, and also explains some of the failures of anticoagulant therapy as seen when thrombosis is not controlled during treatment or flares up after treatment is stopped.

In view of the foregoing observations, it was tentatively concluded that:

1. Anticoagulation plays an active role in maintaining the blood at optimum fluidity and that deficiency of anticoagulation, either absolute or relative, will be reflected in decreasing fluidity of the blood.

2. Decreased blood fluidity is a precursor and reflects the cause of most, if not all, thrombo-embolic diseases and hence may be a useful guide in anticipating these diseases.

3. Blood fluidity follows the compensatory adjustment in coagulation-anticoagulation imbalance and may be of aid in determining the type of treatment, particularly when to give and when to stop anticoagulant drugs.

With these hypotheses in mind, a simple, bedside test was devised to determine blood fluidity as reflected by viscosity, and the test applied to normal subjects, patients with thrombo-embolic disease, patients with a bleeding diathesis, and then on unknowns to see if thrombosis could be predicted.

The principle of the test is based on the fact that the time for a definite quantity of liquid to

flow through a short, small tube is proportional to the viscosity of the liquid. The general idea is to draw from a vein 1 c.c. of blood into a tuberculin syringe barrel through a 25-gauge, $\frac{1}{2}$ -inch, stainless, hypodermic needle, hold the contained blood vertically and determine with a stop watch the time for 15 drops to fall out. Each syringe with its needle is previously standardized with distilled water at 25° centigrade and marked; thus each sample of blood is compared with distilled water. All 25-gauge needles do not give the same standardization because of bore variations. Most that have been used so far give a 15- or 16-second standardization. The Glasbestos-tuberculin syringe barrel used in allergy work has been found to be the most satisfactory. However, here too the bores vary, and it is best to select those barrels in which the 1 c.c. mark is the same distance from the tip; this provides the same pressure-head for forcing the fluid out. The barrels now used measure 7 cm. from the end of the glass tip to the 1 c.c. mark.

The test is now performed in the following routine manner: The previously standardized and sterilized, dry syringe and needle is warmed in the palm of the hand for about 2 minutes, avoiding, of course, the sterile needle shaft. The skin over the antecubital vein is wiped with alcohol and allowed to dry. A tourniquet is applied and the vein entered with the least possible trauma. Blood is drawn to the 1 c.c. mark with the aid of suction from a $\frac{1}{4}$ -ounce rubber bulb adapted to fit into the open end of the syringe and easily removable; the bulb is used instead of a plunger because of more exact control. The tourniquet is released when the blood has reached the $\frac{3}{4}$ c.c. mark (the tourniquet is applied for about 30 seconds). The needle is withdrawn from the vein and the contained blood held vertically over a small test tube containing crystalline oxalate obtained by drying 0.1 c.c. of oxalate solution. A stop watch is started as the first drop falls away and stopped when the fifteenth drop leaves the tip of the

needle. The time in normal subjects is about 90 seconds. The rest of the blood is emptied into the oxalate tube and used for a hematocrit determination later. Cleaning of the syringe and needle is very important for subsequent tests. The syringe and needle are washed out immediately with cold water until all traces of blood are gone (a 10 c.c. control Luer-Lok syringe with rubber adapted tip is quite useful for this). The test syringe is filled with hydrogen peroxide, the top corked and the syringe set aside for more leisurely cleaning later. The later cleaning consists in scraping the needle bore with a stylet and smoothing any point defects. The needle and syringe are then scrubbed with a detergent that leaves no film (a pipe-cleaner with folded tip is very useful for scrubbing the syringe bore). Then using a 10 c.c. control Luer-Lok syringe with a rubber adapter, the test syringe and needle are thoroughly rinsed with 30 c.c. of warm tap water followed with 30 c.c. of distilled water. They are then air-blast dried, standardized, sterilized, and again dried. Chemical sterilization is used because heat changes the bore of the needle. The cleaning of the apparatus cannot be overemphasized, and on it will depend the reliability of the results of the test.

Since normal blood viscosity is due mainly to the corpuscular elements and the plasma proteins, it was thought that a determination of the hematocrit on the same sample of blood would enable a correlation of the cellular factor to the obtained viscosity and thus provide another guide for judging abnormal variations. Deviation from the normal viscosity-hematocrit relationship can be assumed to be due to abnormality in the plasma. However, hematocrit determination is not an essential part of the test.

Seventy-five apparently normal subjects were first tested, most of them at least 3 times, many of them more than 3 times. The ages ranged from 18 to 89 years. The viscosity index (obtained by dividing the distilled water time into

the blood time) varied between 4 and 5.5, the lower figures usually being associated with mild anemia. Since these figures correspond to those given by Best and Taylor¹ in their textbook "Physiological Basis of Medical Practice" for blood viscosity in relation to distilled water, it was felt that the test being used was quite reliable.

The test was then performed on patients with known thrombo-embolic disease. There were 16 such cases tested and followed, and they included thrombophlebitis, phlebothrombosis with and without pulmonary embolism, coronary thrombosis, cerebral thrombosis, auricular fibrillation with peripheral embolism, and peripheral arterial thrombosis. In all of these there was increased viscosity ranging from over 7.5 on up to extremes where the blood clotted before 15 drops were delivered; and the viscosity persisted at varying high levels for at least several days and then suddenly or gradually dropped to normal. Most of these cases were receiving or had received anticoagulant therapy, mainly heparin. One patient with a bleeding diathesis due to excess circulating anticoagulant was tested and found to have a very low viscosity index of 2.5 which gradually climbed to normal range in about 2 weeks. The findings in this case gave substantiating evidence to the assumption that anticoagulation actively kept the blood fluid. All these cases showed the compensatory mechanism at work.

The test was next tried on potential clinical candidates for thrombosis. There were 10 such cases, and they included cases of abdominal surgery, hip fracture, severe leg contusion, vasospasm, and patients with a past history of thrombosis. It was possible to predict thrombo-embolic complications in 2 of these on the basis of maintained high viscosity. The others were within the normal range of viscosity variations except for some of the postoperative patients who had abnormal increases on 1 or 2 tests and then returned to normal. In a future report I shall discuss in more detail all

these cases and others to be collected. It is quite apparent from what has been done so far that blood viscosity might be a useful guide in dealing with thrombo-embolism (see sample records in figures 1, 2 and 3).

The test also shows how the viscosity of the same sample of blood changes as it flows through the needle and is exposed to the thromboplastic action of glass and metal. In a way, it is a

even before 10 drops are delivered in 3 or 4 minutes, or it may proceed normally for about a minute and then the intervals between drops markedly increase, thus indicating early onset of coagulation.

Although the test is quite simple in principle and equipment needed, it should be performed with considerable care, and the apparatus must be conscientiously cleaned and standardized

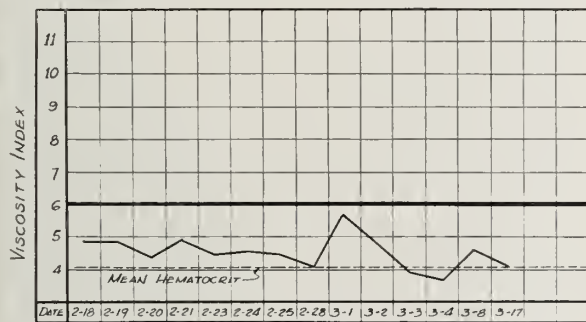


FIG. 1. Serial and intermittent viscosity record of a normal 23-year-old female subject. Note viscosity-hematocrit relationship and compensatory fall in viscosity after rise on 3-1.

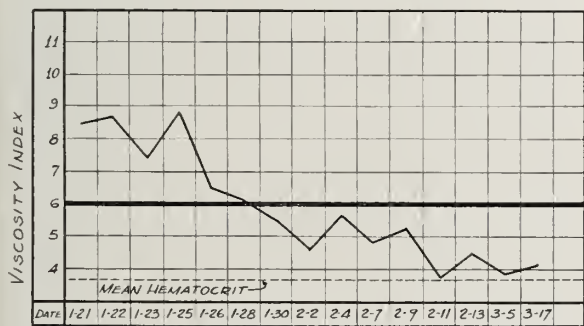


FIG. 2. Serial and intermittent viscosity record of a 23-year-old female with iliofemoral thrombophlebitis which had been in progress for 4 days when this record was started.

reflection of what might be happening to blood flowing through the finer ramifications of the vascular system. The 15-drop volume was chosen because the time taken for it to flow out is ample to bring out any exaggerated clotting response that might be present. Normal specimens of blood, if allowed to drop until clotting occurs, will proceed over 10 minutes, the interval between drops gradually and regularly increasing. In abnormals the blood may clot

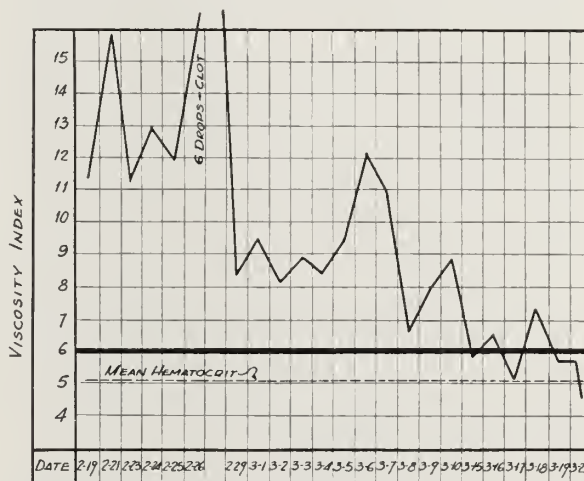


FIG. 3. Serial and intermittent viscosity record of a 44-year-old male with history of thrombo-embolism starting after an appendectomy in 1938 and recurring in 1939, 1947, 1948, and 1949. Above record starts after the left femoral vein was ligated and heparin therapy started for pulmonary embolism. Heparin was stopped on 2-24, and patient discharged in good condition on 2-26 (note the very high viscosity at that time, however). He developed a right iliac vein thrombosis 3 days later and was readmitted for anticoagulant therapy. Heparin was stopped on 3-3 (note the characteristic rise after heparin was stopped), and dicumarol was stopped on 3-10. He was discharged on 3-21. This patient has a sister who has also had repeated attacks of thrombosis.

after each use. High viscosity figures may vary considerably in the same case, but all will be definitely above normal. Likewise, normal figures may vary in the same person, but they will be within the set normal limits. The top normal has been placed at the viscosity index of 6 to allow for variations that may occur with normal blood or for slight defects in the instrument or technic. Future experience may place

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THE CLINICAL USE OF AUREOMYCIN*

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A UREOMYCIN is a highly chlorinated antibiotic derived from a strain of *Streptomyces aureofaciens*.¹ In vitro it has been shown to possess bacteriostatic and bactericidal activity versus gram-positive and many gram-negative bacteria.^{2, 3, 4, 5} Protection of laboratory animals experimentally infected with a variety of bacterial,^{6, 7} rickettsial,^{8, 9} and selected viral agents³ has been demonstrated. The toxicity of the antibiotic is low. Local irritation is encountered when subcutaneous and intramuscular administration is used. Intravenous administration of unbuffered solutions of the hydrochloride salt of aureomycin causes hemoglobinuria and renal damage in dogs.^{7, 10}

In humans the drug is well tolerated and effective when administered orally. Intramuscular administration has been used for clinical investigation. The antibiotic can be dissolved in 1 per cent procaine solution and 50 mg. may be injected in a volume of 2 c.c. of this diluent. Upon repeated dosages the local sites become erythematous and tender. A dull drawing pain which persists for one-half hour follows these injections. More recently, a buffered diluent has been prepared containing L-leucine and sodium hydroxide.[†] This diluent may be used only for intravenous administration, 50 mg. of aureomycin being dissolved in 2.5 c.c. of buffer, and 200 mg. of aureomycin may be repeatedly injected intravenously when dissolved in 10 c.c. of the buffer without untoward symptoms or reaction. However, care to avoid extravasation

is necessary. The indications for parenteral therapy are limited, and as experience with the use of aureomycin is extended, oral administration is found most satisfactory. In comatose patients or children who are severely ill, the drug may be given by gavage.

Numerous patients and normal individuals have been given aureomycin orally in doses of 15 to 100 mg. per kilogram per day for periods as long as 6 weeks. Careful hematologic, renal, hepatic and other studies have revealed no evidence of toxicity. The only untoward symptoms encountered have been nausea, vomiting and diarrhea. The incidence of these manifestations has varied with different preparations. These annoying symptoms are rarely encountered when the individual dose is maintained below 5 mg. per kilogram of bodyweight. The total daily dosage may be increased by more frequent administration. Some relief of nausea and diarrhea are achieved when an aluminium hydroxide preparation such as Cremalin or Amphojel are given with the aureomycin capsule.¹¹

Drug reactions of the allergic or idiosyncratic types, such as drug fever, urticaria, rash, asthma and mental confusion, have not been observed. When doses of 50 mg. per kilogram per day are maintained for a long period of time, emotional symptoms resembling mild depression have been noted. Two patients have complained of a peculiar feeling of "floating." Neurologic examination did not show any abnormality, and the symptoms disappeared when the dosage of the antibiotic was reduced or medication discontinued.

Aureomycin is rapidly excreted in the urine, and high concentrations can readily be observed.

* Read at the Regional Meeting of the American College of Physicians in Washington, D. C., February 19, 1949.

† A sodium glycinate buffer has been developed for the intravenous administration of aureomycin. This has been quite satisfactory and is preferable to the L-leucine buffer described.

With a daily dosage of only 15 to 20 mg. per kilogram of body weight, urinary concentrations of 40 to 80 micrograms of aureomycin per milliliter are attained. This level is sufficient to sterilize the urine of most pathogens. *Proteus vulgaris* and *Pseudomonas* organisms are resistant to the action of aureomycin even when higher concentrations are maintained.

A large group of urinary-tract infections have been treated with aureomycin. Our group has treated approximately 20 cases of severe, chronic infections due to *coli-aerogenes*, *B paracolon*, and *Streptococcus faecalis* organisms. The cases had not responded to penicillin, streptomycin or sulfonamide therapy administered either individually or in combination. Many had been ill for several years, and associated abnormalities of the urinary tract were present. These included stricture of the ureter, cord bladder, calculus, neoplasm, etc. All patients showed a prompt symptomatic response with defervescence of fever, disappearance of pyuria, and sterilization of the urine. In 3 cases proteus infection supervened during or soon after aureomycin therapy. Recurrence of infection was observed in 1 patient who responded to a second course of treatment. The dosage of aureomycin employed varied with the severity of infection. In the majority of infections 15 to 30 mg. per kilogram of body weight each day divided into 6 equal doses was adequate. In severely ill patients 50 mg. per kilogram of body weight has been administered daily for the first few days. Finland and his associates^{11,12} have reported a similar experience in the therapy of urinary tract infections.

Five patients with acute or subacute brucellosis, in all of whom positive blood cultures were obtained, have been treated with aureomycin. Four of these patients were infected with *Brucella suis* and 1 with *Brucella abortus*. These patients had the typical symptomatology of brucella infections and 1 was believed to have brucella endocarditis. The latter patient had not been cured by courses of sulfadiazine, sulfadiazine and streptomycin, or polymyxin. An-

other patient had not responded to sulfadiazine and streptomycin therapy. All 5 patients showed a dramatic clinical response to aureomycin. Blood cultures obtained as early as 24 hours after therapy was instituted were negative. The patients all became afebrile within 72 hours with progressive remission of all symptoms and signs. Treatment was continued empirically for approximately 2 weeks. These patients have been followed for 3 to 8 months without evidence of relapse. All have gained weight and are working at their usual occupation.¹³ Spink¹⁴ has reported successful treatment of brucellosis due to *Brucella melitensis*.

On the sixth to twelfth day of illness, 5 patients with typhoid fever were treated with 60 to 100 mg. of aureomycin per kilogram of body weight daily. This oral dose was supplemented by parenteral administration of 3 to 5 mg. of aureomycin per kilogram. The blood cultures, positive before treatment in 4 cases, promptly became negative. The stool cultures in all 5 cases became or remained negative. The clinical response, however, was equivocal, and defervescence was observed after 24 hours, 8 days, and 11 days. One patient had a relapse 1 week after therapy was discontinued. It does not appear that aureomycin is a specific chemotherapeutic agent for typhoid fever. Equivocal results were also noted by Collins et al¹⁵ in the therapy of typhoid and salmonella infections with aureomycin.

Six patients suffering from various forms of tuberculosis have been treated. In 3, ill with tuberculous meningitis, the drug was ineffective, and none of the antibiotic was detected in the spinal fluid. A 12-year-old Negro girl had 5 scrofulous draining sinuses in her neck for 7 years. Tubercle bacilli had been cultured and isolated in guinea pigs on numerous occasions and also immediately preceding specific treatment. Administration of aureomycin resulted in closure of all sinuses within 10 days, but therapy was continued for 7 weeks. Six months have elapsed since treatment was discontinued

without recurrence. Another patient had been suffering from genitourinary tuberculosis for 2 years. One kidney had been removed because of the infection. The bladder, seminal vesicles, and other kidney were involved. Urine examination was repeatedly found to contain tubercle bacilli on culture and guinea-pig inoculation, and the stained sediment was reported as Gaffky III. Two weeks after aureomycin therapy was begun culture and animal inoculations were negative for tubercle bacilli and have remained negative to date, 5 months later. Aureomycin is still being administered in small doses empirically to insure complete eradication. The former patient received 92 grams and the latter patient has already ingested over 90 grams of aureomycin without evidence of untoward reaction or intolerance. A sixth patient with a large tuberculous pulmonary cavity was treated with aureomycin for 2 weeks without evidence of clinical improvement, and a thoracoplasty was then performed. These observations are of interest, although the efficacy of aureomycin as a chemotherapeutic agent for tuberculosis cannot be evaluated from this small series of cases.

Eight patients ill with moderate to severe infections produced by the *Staphylococcus aureus hemolyticus* have been treated with aureomycin. Seven of these patients were newborn infants in a nursery and several had pneumonic involvement, one with staphylococcal bacteremia. The eighth patient had repeated positive blood cultures, peritonitis and phlebitis. A satisfactory prompt response was noted in all patients when aureomycin therapy was instituted. Antecedent therapy with penicillin, sulfadiazine and in 1 patient streptomycin had been ineffectual. One infant, whose initial infection was a pyoderma and in whom extensive pulmonary involvement had been present despite continuous penicillin therapy for a period of more than 2 months, recovered rapidly when aureomycin therapy was instituted.¹⁶

Twenty patients, who by all available methods

of exclusion have been diagnosed as primary atypical pneumonia, have been treated. Cold hemagglutinins were positive in 50 per cent of this series, and agglutinins for a strain of streptococcus MG developed to significant titer in 75 per cent. They were severely ill. Treatment with oral aureomycin was followed by prompt defervescence of fever and amelioration of symptoms. In none of these patients was extension of pulmonary involvement noted after therapy with aureomycin was instituted. These observations have been confirmed by other groups of investigators.^{17,18,19}

A large series of patients suffering from rickettsial infections have been treated with aureomycin. Sixteen patients with Rocky Mountain spotted fever, eastern type, treated on the third to eighth day of their disease with the oral drug became afebrile within an average period of 48 hours. No complications or deaths were noted among these patients, who ranged from 18 months to 52 years in age. The average total period of hospitalization in this group was 8 days. Two patients with recrudescence epidemic typhus (Brill's disease) have become afebrile within 24 and 48 hours after therapy was instituted.^{11,20,21,22,23,24} Three patients with Q-fever have been treated with excellent results. Lenette et al have reported a successful trial of aureomycin in a more extensive group of infections with the rickettsiae of Q-fever.²⁵

A large group of patients with varied types of infection and disease have been treated with aureomycin. Among these are included an infant ill with meningitis produced by *Streptococcus faecalis* which was promptly cured with oral and parenteral aureomycin. A child with *Diplococcus pneumoniae* Type 6 meningitis had been treated with sulfadiazine plus intramuscular and intrathecal penicillin. The infecting organism had become resistant to these latter antibiotics. Recovery was prompt after therapy with aureomycin was instituted.

Two patients with subacute bacterial endocarditis have been treated. Both had numerous

positive blood cultures before treatment. One patient infected with a strain of *Streptococcus faecalis* recovered completely soon after aureomycin therapy was begun and has remained well for 7 months. The other appeared to respond and remained afebrile for 5 weeks while receiving aureomycin. Cultures promptly became positive again and sterilization was not achieved when treatment was reinstituted even though intravenous therapy was increased to 10 mg. per kilogram daily in addition to 50 mg. per kilogram orally. The in vitro resistance of this organism (*Streptococcus salivarius*) was unchanged and remained in the susceptible range (1 to 2 micrograms per milliliter).

Two infants with postoperative meningitis secondary to drainage of a brain abscess, 1 due to *Staphylococcus aureus* and the other to *Escherichia coli* were cured with aureomycin. Two patients with peritonitis and 2 with localized postoperative peritoneal infections have shown prompt remission of signs and symptoms following aureomycin therapy. *E. coli* and *Streptococcus faecalis* were the offending organisms.

One patient each with polioencephalitis, noma, and pancreatic necrosis with secondary infection have been treated with aureomycin without beneficial results. Two patients with whooping cough and 4 with erythema multiforme did not appear to have the course of their illness materially affected by aureomycin therapy. Eleven cases of measles have been treated early in their disease. The results were erratic and one cannot determine whether aureomycin influenced the progress of the illness. Mumps and herpes zoster have appeared in patients receiving aureomycin for other infections.

Various investigators have reported excellent results with aureomycin in the treatment of lymphogranuloma venereum and granuloma inguinale.^{26,27} Preliminary reports on the treatment of psittacosis with aureomycin are favorable.²⁸

SUMMARY

It is evident that aureomycin is a valuable addition to the chemotherapeutic armamentarium. Early clinical trial has not delimited the complete spectrum of its usefulness. To date serious infections caused by numerous gram-positive and gram-negative bacilli, rickettsiae, and viruses of the lymphogranuloma group have been shown to be definitely ameliorated. Acute brucellosis, primary atypical pneumonia, and urinary tract infections with *B. coli*, *Aerobacter aerogenes* and *Streptococcus faecalis* are among the diseases favorably affected. Typhoid fever has not shown a significant clinical response when treated with aureomycin. This antibiotic does not appear to be effective in whooping cough, measles, and various infections of questionable etiology such as erythema multiforme, infectious arthritis, or thyroiditis.

The optimal oral dosage of aureomycin has not been determined. At present 5 milligrams per kilogram of body weight administered 6 to 12 times a day is recommended. This may soon be changed as less nauseating preparations become available, so that larger amounts may be given at longer intervals.

Parenteral preparations of aureomycin soon may be released for general use. They will be of distinct advantage in severely ill patients in whom rapid saturation is desirable or under circumstances in which the patient's condition does not permit ingestion of the antibiotic.

Thus far, significant signs of toxicity or idiosyncrasy have not been observed with aureomycin.

BIBLIOGRAPHY

1. DUGGAR, B. M.: Ann. New York Acad. Sc., 1948, **51**, 177.
2. CHANDLER, C. A., AND BLISS, E. A.: Ibid., 1948, **51**, 221.
3. BLISS, E. A., AND CHANDLER, C. A.: Proc. Soc. Exper. Biol. & Med., 1948, **69**, 467.
4. PAINE, T. F., JR., COLLINS, H. S., AND FINLAND, M.: Ann. New York Acad. Sc., 1948, **51**, 228.
5. PAINE, T. F., JR., COLLINS, H. S., AND FINLAND, M.: J. Bact., 1948, **56**, 489.

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USES AND ABUSES OF INTRAVENOUS THERAPY AND BLOOD SUBSTITUTES*

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*M*UCH fluid has passed into the veins of our patients since the days of the subcutaneous saline infusion and the Murphy drip. George W. Crile¹ deserves the full credit for reviving blood transfusions about 40 years ago, and his infectious enthusiasm stimulated others to continue the investigation of the technic. This is neither the time nor the place to discuss the history of blood transfusions, but it is not amiss to note the monumental contributions of American research to the entire subject of blood transfusions and intravenous therapy with blood derivatives and substitutes.

It remains an undisputed assertion that plasma, electrolytes, glucose, or gelatin in solution are not true substitutes for blood when blood volume is depleted. Whole blood contains one substance unmatched and unpossessed by any other intravenous fluid, namely, hemoglobin capable of conveying oxygen. This property has not been emphasized sufficiently, and it contributes no small part to the recovery of patients suffering from shock or hemorrhage.

In the replacement therapy of blood lost in surgical operations, the studies by Collier² are impressive and amazing in that the loss greatly exceeds the estimate of most surgeons, yet Collier's deductions must stand unchallenged in the absence of any other accurate measurement. This meticulous work doubtless influenced many to employ transfusions almost routinely in all major operations, and to follow up with 500 c.c. or 1,000 c.c. of blood within the next 24 hours. Although transfusion of blood is attended with little risk or expense, it does not solve all post-

operative problems, and the extravagant and reckless use of blood should be frowned upon. A reasonable indication should exist. There are recorded a number of deaths from transfusions, some unexplainable and others due to technical errors, incompatibilities and unpredictable accidents.

It is not practical or possible to prescribe the quantity or frequency with which blood should be given, although attempts have been made to standardize the procedure. There is a wide margin of safety, but it should not be assumed that it is impossible to overdo it. Too many red blood cells can impede the capillary circulation; excessive volume may embarrass a weak heart; and should hypertension be present, it may be accentuated sufficiently to initiate a catastrophe. The danger of introducing the virus of hepatitis will be referred to in the consideration of plasma.

Blood substitutes are used for a variety of purposes, chief among which are (1) to maintain or elevate blood pressure, (2) to supply electrolytes, and (3) to sustain caloric requirements. There is no solution, either biologic or chemical, which meets all these requirements, but a combination of two or three will meet some of the indications.

Solutions commonly used are blood derivatives, meaning plasma, concentrated albumin, globulin, red blood cells in suspension, and those not derived from blood, such as solutions of amino acids, gelatin, glucose, acacia and pectin, and ascitic fluid. I would place plasma as the prime substitute for blood.

Until blood banks were established at many centers—and now 20 per cent of the hospitals are so equipped—plasma was the “understudy” for blood and still fills a gap in the therapy

* Read at the Sectional Meeting of the American College of Surgeons in Washington, D. C., March 16, 1949.

of shock and hemorrhage. No fluid except blood approaches plasma in such emergencies, because it requires no typing, can be kept in a liquid state at room temperature almost indefinitely, rarely causes reactions, and requires but a few moments in preparation for its administration. It can be given under pressure, if haste is necessary, and in relatively large amounts. The possibility of a fatality from the administration of plasma is almost nil. Not only does plasma have a content of 6 per cent protein biologically available, but the globulin may incorporate antibodies; in addition, it carries salts of sodium, potassium and phosphorus, sugars, and fats. However, one word of caution is necessary in its use. If one would avoid homologous serum hepatitis, which may follow in 5 per cent of patients receiving pooled plasma, he must be sure that the donors have been carefully screened or that the plasma has had ultraviolet irradiation.

Plasma has proven useful in those patients with depleted serum protein, designated hypoproteinemia or, more exactly, hypoproteinoses. It is described as that condition characterized by low protein serum level, dryness of the skin and tongue, loss of weight, and edema of the subcutaneous tissues, conspicuous in the face, hands, lower extremities, scrotum and back. This condition may be present not only following operations but is noted in many patients presenting themselves for hospitalization and operation, particularly those with constitutional diseases and those with lesions of the gastrointestinal tract. Many such patients can be fortified and sustained by fluids containing proteins, and in order of their merit I would place blood, plasma, and the amino acids. Very few such patients can ingest and digest sufficient food at the time to replenish the loss or prevent further loss, chiefly for the reason that the disease of which they are the victim, directly or indirectly, involves the assimilation of proteins. We must resort to parenteral fluids. A similar situation is faced in extensive burns and chronic

ulcers. Here again parenteral proteins come "to the rescue," but no dramatic elevation of the serum proteins can be expected, especially if they are below the critical level. The use of parenteral proteins may extend over several weeks, or until the patient can utilize a selected diet.

Cohn and his associates have succeeded in isolating proteins in plasma, and those which have contributed most to clinical medicine have been serum albumin and gamma globulin, but they seem destined to participate in the therapy of the internist rather than the therapy of the surgeon. Concentrated albumin is capable of restoring blood pressure in shock in a remarkable manner. In hepatic cirrhosis and in nephrosis it promptly relieves the impaired liver and kidneys. Elman³ has shown that salt-poor human albumin is more effective than plasma in sustaining the albumin content of the blood, and is superior in inducing diuresis and weight loss in edema. Gamma globulin is the vehicle which mobilizes antibodies. It has proven a definite prophylactic in a large per cent of those exposed to measles and virus hepatitis, but of doubtful value after the latter disease has developed.

Fibrinogen has been utilized for its blood coagulating properties, but it is somewhat beyond the scope of this paper to enter into a discussion of its various derivatives.

Solutions of amino acids for intravenous use have been offered to the profession in the past few years. I believe the faults, if they can be so described, are the too frequent reactions and the time consumed in projecting them into the circulation. I have felt that the amino acid solutions have been most effective when considered as a source of food, particularly in those cases which show a chronic rather than an acute depletion. They have no place in the treatment of shock or hemorrhage. In those deprived of the desire for food or the ability to digest it, or who lose the benefit of food through fistula, diarrhea, ulceration or vomiting, the amino acids find their greatest use. In the immediate

period following a major operation, when the ingestion of food is practically nil, amino acids, glucose and the electrolytes in solution furnish the proteins, salts and sugar, and can be accurately given by the intravenous route. Part if not all of the caloric requirements are met at the same time.

It was my hope in the early experience with amino acids that the nitrogen balance could be maintained by their use. In a series of operative cases in which the nitrogen loss was checked against the nitrogen intake, and using amino acid solutions as a source of nitrogen, my associates and I were forced to admit that we could not maintain a nitrogen balance. There was almost invariably a negative nitrogen balance notwithstanding that large quantities of amino acid solutions were given parenterally. We concluded they were not wholly appropriated by the tissues, but through a considerable spill-over found their way into renal excretions. If in addition to the amino acid solutions plasma and glucose were given, some semblance of nitrogen balance could be established. It is evident that the estimation of the protein content of the serum or the total plasma volume should be known if we can expect to ascertain the indication for the parenteral administration of any kind of protein, and this applies to either the preoperative or the postoperative case. There is no lack of observation on the low protein levels before and after operations. Those patients with carcinoma of the gastrointestinal tract, chronic peptic ulcers, and colostomies, to mention only a few, almost invariably show a low level, and we would be wise to supplement their intake of proteins by parenteral fluids. Ravdin⁴ long ago amply demonstrated the relation of low protein levels to disruptions of wounds, and others have confirmed his observations. Once the protein sinks to the critical level it cannot be elevated and sustained at a normal level in a matter of hours. It is very probable that liver damage appears at this point, not irreparable, but restoration is delayed.

Just how long one may continue to feed the patient by the intravenous route is problematical, but cases are reported in which this method of furnishing nourishment has extended as long as 6 weeks. Although this mechanism has carried patients over critical periods, it cannot replace the natural method of utilizing food, and one should revert to the normal physiologic manner of feeding at the earliest practical moment. Protein levels are better maintained by ingested foods, when tolerated and digested, than by any other means. Co Tui⁵ and others have found that amino acid solutions promote the healing of peptic ulcers, and others have noted their efficacy in decubitus and indolent ulcers. One cannot conceive of any specific properties of protein solutions in the aforesaid conditions aside from their nutrient value.

Glucose in 5, 10, or even 20 per cent solution in saline or distilled water is freely used in dehydration without too much consideration of the amount required. We can be sure that such solutions furnish chlorides, water and calories, and perhaps spare the liver, but they have only a temporary action in elevating the blood pressure and are not the solutions of choice in acute hypotension. Glucose is so often combined with sodium chloride that 2,000 to 3,000 c.c. of the combination daily invites an overload of salt, predisposing to edema. Not over 3 grams of salt are required daily, unless there is an unusual loss. An excess is promptly excreted by a healthy individual, but patients with hepatic or renal insufficiency find excessive salt a physiologic liability. It would be advisable in many instances to use distilled water with glucose.

Because we are inclined to use too little and not too much intravenous fluids, particularly the electrolytes, not enough care is exercised in prescribing the total amount of fluid the patient should receive. A number of studies have been made on the loss of fluids postoperatively, and as a result there followed a trend to push up the fluids to 4,000 c.c. and even 5,000 c.c. daily; but except under unusual circumstances the

general practice is to furnish 3,000 c.c. daily and allow an additional 1,000 c.c. if a Wangensteen or similar tube is keeping the stomach empty. We should be alert to the many discomforts some patients suffer by inept technic in the administration of intravenous fluids. Skillfully given, it is divested of pain or fear, but a bungling job sets up a reaction that makes subsequent infusions a dreaded ordeal. The time element in administration may seem a minor matter, but it is not unusual to discover that 3 or even 4 hours are consumed in giving 1,000 c.c. of protein solutions. Two hours should be the maximum time for the introduction of 1,000 c.c. of any intravenous fluid. Lundy⁶ has utilized a fine, flexible tube, which, when passed into the vein through the needle, permits the withdrawing of the needle. It is particularly useful in children and uncooperative patients.

There has been a mild trend to revive the use of both fish and animal gelatin in solution for intravenous use, but as all the essential amino acids are not present in gelatin, it remains an incomplete protein so far as its biologic value is concerned. It is doubtful if it will be a worthwhile addition to our intravenous fluids, but possibly some combination with a sugar may be forthcoming, and it warrants further trial. Gelatin in 3 to 7 per cent solution has been used by Taylor⁷ and others with indifferent success.

Hartman⁸ and Meyer⁹ are identified with the use of pectin, chiefly as a substitute for blood or plasma in shock, but at the present time no definite conclusions can be drawn as to the value of pectin solution as a plasma substitute. Pectin is a carbohydrate and supplies no protein. It is deposited in the vital organs and in the phagocytic cells of the body. Experimental and clinical evidence of its real value in shock associated chiefly with hemorrhage or plasma loss is still wanting.

Acacia is an inert polysaccharide of high molecular weight. It does not freely permeate the capillaries and when in the blood stream draws fluid and thus enhances the mobilization of fluid

into the vascular channels. Approximately 60 per cent of the injected drug is removed from the blood stream in 7 days, and the remaining portion of acacia persists for long periods. In my experience with stored blood I noticed that typing and crossmatching of the blood of patients who had received acacia for nephrotic edema was extremely difficult. Rouleau formation and pseudo-agglutination made it difficult to interpret the findings in these procedures. Shock is an acute hypoproteinemia or hypoalbuminemia and the best treatment should include adding protein to the blood and tissues. A polysaccharide that is deposited in the liver and may produce thrombi almost seals the fate of the use of acacia for the treatment of shock when other blood derivatives or substitutes are available. It may have a place as a diuretic in nephrotic edema.

Bovine plasma and serum have been used by Wangensteen, and he has stated that it may be administered intravenously to some patients in fairly large quantities. It is not available to the profession at large, and a recommendation for its use should be deferred pending further experimental and clinical data.

A few years ago, Dr. Davis, Dr. Choisser, and myself conceived the idea that a large amount of valuable protein solution was wasted each time an ascitic abdomen was tapped. We found this fluid contained about 3 per cent protein, could be preserved if sterile, and perhaps could be used as a substitute for plasma. However, so many reactions followed its use in animals that we concluded the use of it clinically would be hazardous. Davis¹⁰ has continued to explore this field.

Bull, Ricketts, Squires and their associates¹¹ have recently published their comprehensive work with dextran, a polysaccharide colloid introduced by Gronwall and Ingelman¹² of Sweden as a substitute for plasma. A perusal of their paper would indicate that it has much to commend it, but they state in conclusion, and I quote: "There is still doubt about the ultimate

SPINA BIFIDA CYSTICA: REVIEW OF SEVENTY CASES WITH REPORT OF A CASE OF CERVICAL MENINGOCELE*

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SPINA bifida cystica (meningocele, meningomyelocele, and myelocele) has been estimated to occur in about 1 in every 1,000 newborn infants.^{1, 2} Penfield and Cone³ in a study of 27 cases reported an incidence of 25.8 per cent meningoceles, 66.8 per cent meningomyeloceles, and 7.4 per cent myeloceles. In reviewing 70 cases of spina bifida cystica treated at Children's Hospital from November 1936 to November 1948 we found 19 (27.1 per cent) meningoceles, 51 (72.9 per cent) meningomyeloceles, and no case of pure myelocele. Table 1 compares the locations of the spina bifidae in this series with those reported by Moore⁴ in 1905, by Cutler⁵ in 1924, and by Woltman⁶ in 1921. The findings correspond fairly close in all these series.

In considering meningoceles separately from the group, it has been stated by Holt and McIntosh⁷ that the cervical region is their most common site; however, of the 19 meningoceles in our series the majority were in the lumbar and lumbosacral regions, and only 1 (the case herein reported) occurred in the cervical region.

Pre- and postoperative complications are frequent in spina bifida cystica.^{7, 8} Preoperatively one is confronted with the danger of

TABLE 1
Distribution of Sites

	CERVICAL	THORACIC AND THORACOLUMBAR	LUMBAR AND LUMBOSACRAL	SACRAL
	<i>per cent</i>	<i>per cent</i>	<i>per cent</i>	<i>per cent</i>
Authors' series (70 cases)	2.9	11.4	80.0	5.7
Moore ⁴ (385 cases)	9.5	4.5	63.0	23.0
Cutler ⁵ (39 cases)	15.38	10.25	64.09	10.25
Woltman ⁶ (138 cases)	7.9	5.0	65.0	21.0

rupture of the sac and/or local infection and meningitis, and postoperatively care must be exercised to prevent wound or distant infections, i.e., meningitis, sepsis, pneumonia, and urinary tract infections. These points are well illustrated in table 2.

TABLE 2
Pre- and Postoperative Complications

AUTHORS' SERIES	PREOPERATIVE RUPTURE OF SAC	MENINGITIS AS PRE- OR POSTOPERATIVE COMPLICATION	INFECTED SACS OR OTHER INFECTIONS AS COMPLICATIONS
	<i>per cent</i>	<i>per cent</i>	<i>per cent</i>
Meningocele	26.3	21.1	10.5
Meningomyelocele	10.0	20.0	11.8

Apart from being subject to pre- and postoperative complications, many cases of spina bifida cystica are accompanied by other anoma-

* From the Children's Hospital, Washington, D. C.

lies, the most frequent being internal hydrocephalus. Although Ford⁸ and Holt and McIntosh⁷ state that operative removal of the cystic sac frequently results in the development of hydrocephalus, this series would seem to indicate that internal hydrocephalus is the result of an associated congenital anomaly, since, of the 5 cases of meningocele that survived surgery, none has developed hydrocephalus. Simple excision of the sac was performed in each case. The frequency of associated anomalies is depicted in table 3 as follows:

TABLE 3
Associated Anomalies

AUTHORS' SERIES	ASSOCIATED HYDROCEPHALUS	CLUBBED FEET	OTHER CONGENITAL ANOMALIES
	<i>per cent</i>	<i>per cent</i>	<i>per cent</i>
Meningoceles	36.8	31.6	10.5
Meningomyeloceles	56.9	29.4	11.8

Careful preoperative management of the sac is of utmost importance because if rupture or ulceration occurs, surgery becomes extremely hazardous. The infant should be placed in the prone position and the sac remain exposed and uncovered in order to prevent pressure necrosis and subsequent infection. The surface must be clean at all times, and an antiseptic solution may be employed to accomplish this end.

Many cases of spina bifida cystica are for all practical purposes inoperable. For example, meningoceles become poor and dangerous risks if complicated by rupture, infections or meningitis, or if accompanied by hydrocephalus, hence 57.9 per cent of this series of meningoceles were not repaired. The operability of meningomyeloceles is far less practical than that of meningoceles, since if accompanied or complicated by hydrocephalus, infections, rupture, meningitis or complete paraplegia with involvement of the bladder and rectum, surgery is usually hopeless; hence, 88.2 per cent of 51 cases were considered inoperable. Myeloceles are obviously noncorrective.

We believe that, barring uncorrectible complications or major associated anomalies as mentioned, all meningoceles and all meningomyeloceles with minor neurologic changes should be repaired surgically. It is our contention that surgical removal of the sac should be accomplished shortly after birth in those cases in which thin atrophic skin covers the sac. Unnecessary delay in removing such a thin sac frequently results in rupture, infection or meningitis, and thus postpones or contraindicates surgery. It is also highly undesirable to delay surgery because of an anticipated hydrocephalus, since an intercurrent infection may prove fatal during the waiting period. If the skin covering the sac is of normal thickness and there are no reasons to expect rupture, one might withhold operating until the infant has reached his second or third birthday.

Table 4 represents the percentages of cases in this series that (a) were considered worthy of surgery, (b) were repaired surgically, (c) refused repair, and (d) died before surgery could be performed as the result of intercurrent infections and rupture due to prolonged but planned surgical delay.

TABLE 4
Surgical Considerations

AUTHORS' SERIES	WORTHY OF SURGERY	SURGICALLY REPAIRED	REPAIR REFUSED	SURGICAL DELAY AND DEATH
	<i>per cent</i>	<i>per cent</i>	<i>per cent</i>	<i>per cent</i>
Meningoceles	57.9	36.8	5.3	15.8
Meningomyeloceles	15.7	11.8	—	3.9

Seven other cases of meningomyelocele with associated hydrocephalus were repaired plastically in order to facilitate nursing care.

The operative mortality for spina bifida cystica has been reported as low as 29 per cent (Sachs⁹). However, Craig¹⁰ reported a 50 per cent mortality, Moore¹ 35 per cent, Harmer¹¹ 47 per cent, and Cutler⁵ 48 per cent. The overall operative mortality in this series was 30.8 per cent (2 cases or 28.6 per cent for meningo-

celes and 2 cases or 33.3 per cent for meningo-myeloceles). The operative fatalities for meningocele in this series were due to complicating pneumonia and meningitis and for meningo-myelocoele to meningitis.

Five of the 7 operated cases of meningocele, or 71.4 per cent, survived surgical repair and at present are normal infants and children showing no abnormal neurologic findings. Their post-operative ages are 9 years, 8 years, 5 years, 2 years, and 5 months. The 5-year-old child has an associated right talipes equinovagum.

Four of the 6 children operated on for meningo-myeloceles, or 66.7 per cent, are alive today. Two, 2 years and 4 years of age, are physically, neurologically, and mentally normal, whereas 1, aged 15 months, exhibits minimal pareses of the right and left sixth cranial nerves and moderately delayed physical development. Another, aged 2 years and 10 months, developed hydrocephalus following surgery and is mentally and physically retarded.

Following is a case report of a cervical meningocele repaired on the fourth day of life. This is presented in order to stress the importance of the early operability of these cases.

REPORT OF CASE

C. R. (Case No. 48-11460), a 1-day-old colored female infant, was admitted to the Children's Hospital on October 3, 1948 because of a tumor mass in the posterior cervical region. This was the mother's first pregnancy. She had received adequate prenatal care, and the prenatal course had been uneventful. There was no history of venereal disease in either of the parents. The patient was a full-term infant, born of a spontaneous, normal delivery at which no instrumentation was necessary. The birth weight was 6 pounds and 14 ounces. The maternal postpartum course was not attended by complications. The remainder of the history failed to elicit any pertinent data.

On admission the temperature was 99.6 F., and the weight was 6 pounds and 12 ounces. The sutures of the skull were fused, and the anterior fontanel was normally open. No bulging was apparent. The circumference of the skull was 34.0 cm.; that of the chest was 31.5 cm. A pedunculated tumor mass the size of an orange was present in the posterior cervical region. The pedicle of this

tumor mass was rather thick (approximately 5.0 cm. in diameter) and covered an area which roughly corresponded to the lower 6 cervical vertebrae (C2 to C7). The basilar four-fifths of the mass was covered by skin, and the remaining upper fifth was covered with a rather tense, thin, greyish-blue membrane. Two eroded areas, approximately 2.0 cm. in diameter, were present on the surface of this membrane. The tumor mass transilluminated easily, and a superficial venous pattern could be seen. A questionable atrophy of the suboccipital muscles underlying this cystic structure was noted. The remainder of the physical and neurologic examinations was normal. A diagnosis of cervical meningocele with probable spina bifida was made.

An admission X-ray film of the cervical region and thoracic spine in the A-P and lateral positions revealed a large, "goose-egg"-sized, soft tissue mass extending posteriorly from the upper thoracic segments but no other evidence of abnormality.

The infant was placed on a regular evaporated milk formula, and 25,000 units of penicillin was given intramuscularly every 3 hours as a prophylactic measure. The penicillin was continued for the remainder of the hospital stay.

On the morning of October 6, 1948, the third hospital day and the fourth day of life, the cervical meningocele was totally removed under general anesthesia consisting of an ether-oxygen mixture. No preoperative medications were given. During the operation a transfusion of 150 c.c. of whole blood was administered. The cervical sac measured 8 x 10 x 8 cm. and contained a large vascular element originating from the posterior spinal cord veins. No nerve elements were demonstrable either grossly or microscopically. The defect appeared to be between the fifth and sixth cervical vertebrae. The sac and its vascular bundle were completely excised, the dura and cervical muscles approximated, and the skin and subcutaneous tissue closed over the defect. During the first 6 hours postoperatively the infant was given 2 clyses, each of 75 c.c. of 5 per cent glucose in normal saline. For the second 6 hours small sips of glucose water by mouth were permitted, this being increased to a half ounce every 2 hours during the subsequent 12 hours. After the first 24 hours, regular formula feedings were instituted.

On the sixth postoperative day the wound had healed and the sutures were removed. Frequent physical and neurologic examinations during the remainder of the hospital stay failed to reveal any abnormalities. Eleven days after operation the patient was discharged in a normal condition. At 5 months of age she could sit without support and move her head, neck, and all extremities freely. No abnormalities were noted at that time, and there was no evidence of developing hydrocephalus.

SUMMARY

Seventy cases of spina bifida cystica treated at Children's Hospital over a 12-year period are reviewed. Twenty-seven and one-tenth per cent were meningoceles and 72.9 per cent were meningomyeloceles. The majority of the meningoceles were lumbar or lumbosacral in position rather than cervical as reported by Holt and McIntosh.⁷ Rupture, local infection, meningitis, sepsis, and pneumonia were frequent complications. Associated anomalies such as internal hydrocephalus and clubbed feet were common. Contrary to the reports of Ford⁸ and Holt and McIntosh,⁷ operative removal of the sac did not produce hydrocephalus in any of the 5 cases of meningocele. In the absence of complications or major associated anomalies all meningoceles and all meningomyeloceles with minor neurologic changes are worthy of surgical repair. Surgery should never be delayed merely because of anticipated future complications, and if necessary may be performed within a few days of birth. It seems that surgical repair is unwisely delayed in many worthy cases, with the result that complications are superimposed and make the cases inoperable. Even in cases of doubtful prognosis nothing is lost in operating and much may be gained. In this series 57.9 per cent of the meningoceles and 15.7 per cent of the meningomyeloceles were considered worthy

of surgery. The over-all operative mortality was 30.8 per cent. Thirty-six and eight-tenths per cent of the 19 meningoceles were repaired surgically, and 71.4 per cent of those repaired are entirely normal neurologically and mentally at the writing of this paper. Two of the 4 meningomyeloceles that survived surgery are entirely normal today. These figures do not include those meningomyeloceles repaired plastically to facilitate nursing care.

A case of cervical meningocele repaired on the fourth day of life with complete recovery is reported as an example of the early operability of these cases.

BIBLIOGRAPHY

1. BUCY, P. C., cited by McQuarrie, I.: Brennemann's Practice of Pediatrics. Hagerstown, Md.: Prior, 1948.
2. Clinical Society of London: Report of Committee on Spina Bifida. Tr. Clin. Soc. Lond., 1885, **18**, 339.
3. PENFIELD, W., AND CONE, W.: J. A. M. A., 1932, **98**, 454.
4. MOORE, J. E.: Surg., Gynec. & Obst., 1905, **1**, 137.
5. CUTLER, G. D.: Arch. Neurol. & Psychiat., 1924, **12**, 149.
6. WOLTMAN, H. W.: Minnesota Med., 1921, **4**, 244.
7. HOLT, L. E., AND HOWLAND, J.: Holt's Diseases of Infancy and Childhood, 11th ed. Revised by I. E. Holt, Jr., and R. McIntosh. New York: Appleton-Century, 1940.
8. FORD, F. R.: Diseases of the Nervous System in Infancy, Childhood and Adolescence, 2nd ed. Springfield, Ill.: Thomas, 1946, pp. 187 and 280.
9. GROSS, S. W., AND SACHS, E.: Arch. Surg., 1934, **28**, 874.
10. CRAIG, W. McK.: S. Clin. North America, 1929, **9**, 219.
11. HARMER, T. W.: Boston M. & S. J., 1917, **177**, 353.

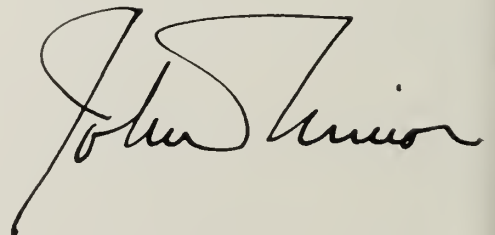
President's Page

OUR PRIMARY FUNCTION

At the close of a year in the honored position of Presiding Officer of the Medical Society, I offer a few brief thoughts on the nature and function of the organization.

My experience in the past twelve months has led me to the belief that while such societies have a number of useful functions, the purposes of our profession for now and the future are best served by putting primary emphasis on professional development; interchange of thought among people working in the many diverse fields which medicine touches today; and stimulation of individual participation at all levels of interest in such activities. I believe it is possible for a medical society such as ours to make itself a central, integrating, and collection station. I believe many thoughtful physicians deplore the splitting off of energies by small local societies which, in an important degree, tend to emasculate the professional life of the central society. Channeling of the energies used in these divisive groups into the Medical Society would have a strong impact.

There is no doubt that the service activities which the Society performs are most useful; and that it is necessary in this day to carry on public relations in a dignified, open-minded and energetic fashion, avoiding copying the methods of commercial advertising, in the larger spirit of a great profession; but I believe that the primary and increasing emphasis should be on the professional rather than the economic interests of the doctor.



Editorials

LITERARY ASPECTS OF MEDICAL JOURNALS*

Medical journals are difficult to classify. While they are not trade journals, they fall somewhere between magazines for the general public and trade journals. In addition they have the most homogeneous reading public possible. I know of no other group of publications whose readers all have at least a certain common degree of information and background. However, there are three fundamental principles of style, or literary production, which apply equally well to all journals.

First, all writing must communicate, that is, transfer ideas from the writer to the reader. Writing which does not communicate is not writing. Creative editing simply means improving the technics and the mechanics of transferring ideas from one person to another.

In terms of communication there are three or four things on which I can comment. The first of these has to do with simplicity. I recognize that there is a preponderant need for the use of scientific and technical terms. However, nonscientific and nontechnical terms used are often characterized by the utmost polysyllabication.

As to simplicity, the following statement is remarkably applicable: "A book, a magazine article, a newspaper, a poem, no matter what kind of writing, has one leg on immortality's trophy when the words are for children and the meanings are for men."

Second, writing, when properly managed, is but another name for conversation. So said

a great writer named Laurence Sterne. Physicians do not write as they speak. There is a stiffness, an artificiality, in their writing. They do what golfers do when they are trying to correct a slice—they press. They feel that their stuff is on parade. Consequently, it becomes stiff, artificial and rigid.

Third, some of the contributors whose articles appear in medical journals have made what Schopenhauer called the error of subjectivity. I grant that his statement is polysyllabic, too, but let me quote what Schopenhauer said on the subject:

"A writer commits the error of subjectivity when he thinks it enough if he himself knows what he means and wants to say and takes no thought of the reader who is left to get at the bottom of it as best he may.

"This is as though the author were holding a monologue; whereas it ought to be a dialogue in which he must speak all the more clearly, inasmuch as he cannot hear the questions of his interlocutor.

"The words should be so set down that they directly force the reader to think precisely what the writer meant when he wrote them. Nor, concludes Schopenhauer, will this result be obtained unless the writer has been careful to remember that thought so far follows the law of gravity that it travels more readily from head to paper than from paper to head."

This, I think, is as profound a comment on the problem of communication as I have ever read.

Finally, while on the subject of communication, there is the business of going from the known to the unknown. A man who has spent weeks, months, years or decades on a subject knows it thoroughly and intimately. He may overlook the fact that, when he is writing for his fellow physicians, they are not so intimately

* Excerpts from the discussion of a participant in the State Medical Journal Clinic held in connection with the AMA Conference of State Medical Association Secretaries and Editors in Chicago, November 7, 1947.

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia.

acquainted with the subject, and he sometimes goes from the unknown to the more unknown.

In regard to incidents, anecdotes, being specific and being concrete, some one has said that nine tenths of all good writing consists of being concrete and specific and the other tenth does not matter.

The second problem is that of incubation. I do not need to emphasize that with physicians, because, obviously, material in medical journals is the result of long, careful, tedious research, clinical experience and so forth. "But," you may say, "the contributors and the editors have put in incubation time in gathering the material and not in the presentation of it." My comment is simply that the product, the finished writing, bears the same relationship to the groundwork, the research, that the part of an iceberg above water does to the part under water, and an iceberg is approximately one-eighth visible above water, is it not?

I do not believe that there is any such thing as good writing. I think that there is only good rewriting. I think that this has to do with going over the material again and again, which I assume that physicians are as unwilling to do as are other persons, to get out the tediousness, the polysyllabication and the wordiness. All of us are wordy. The way to eliminate that is in rewriting. If the contributor does not do it, the editor, the editor's assistant or somebody on the secretarial or on the editorial staff should.

I have heard some persons say that they write only to please themselves; all that they are interested in is getting facts on paper. The only trouble with writing to please one's self is that one's self is frequently too easily pleased.

With a background of a good many years of editing types of magazines and books that do not concern doctors in the slightest, I do want to offer a few specific concrete suggestions.

1. At the beginning of each article there might be inserted a thumb nail sketch, a résumé of the article, in ten, fifteen, twenty or thirty words. I think that it would be helpful to a

busy practitioner to be able to read a fifty-word description to determine whether the article is something he wanted to read. Otherwise he will not pay any attention to it at all.

2. More attention should be paid to titles. There are two requisites for titles. One is that it should be descriptive, and the other is that it should be arresting. Many titles are unnecessarily wordy and long and could be cut down. A little attention to titles might lead to attention to readability.

3. The literary aspects of medical publications probably could be improved, at some cost, with the addition of, if not half-tones, a few line drawings of some kind, on the ground that pictures constitute the only democratic medium of communication which the world has ever known.

4. Incidents and anecdotes would enliven medical articles, without in any way cheapening or lessening their scientific effect.

5. I think that probably "Tonics and Sedatives," as in *The Journal of the American Medical Association*, might be given more space in some of the state medical journals than it has. I think that physicians like to laugh as well as any one else. I think that this is good material and that half a page could be given to it in every issue.

6. Finally, I think that the book reviews could contain, at least more than they do, books of general appeal to physicians rather than only scientific material.

I have one final comment—I would like to suggest, not recommend but suggest, the possibility that each issue of each medical journal contain an article written on a scientific problem for the lay public. I believe that that would result in an enormous pick-up in the public press, and in that way the medical profession would be able to insure the quality of scientific information which is being given to the public at large.

HARRY SHAW
General Editor,
Harper and Brothers

EPILEPSY—A CHALLENGE!

"And oftentimes it [the convulsion] hath cast him into the fire, and into the waters, to destroy him: but if thou canst do any thing, have compassion on us, and help us" (Mark 9:22). The physician of today may well sympathize with the disciples who came to the Master with this case of epilepsy and who were helpless before the convulsing boy. Today this feeling of helplessness can be eradicated by a common ideal among medical men, each in his own way striving to reduce this social and medical burden to the best of his ability. The outlook which this age requires will condition and add impetus to our human endeavors. This calls for a revision of antiquated ideas and old forms of therapy.

The application of old ideas to a constantly improving status in the care of the epileptic must be supplemented by hopeful and progressive thought. If one will accept the idea that the clinical convulsion is the direct result of a disturbance in the normal brain physiology, whether the exciting factor be extracranial or not, a great forward step will be made in medical thought. Too many people have the erroneous impression that convulsions are due to constipation, bad teeth, etc. It is true that the precipitating factors are not always beneath the dura, as the ancients conceived, but they are due to an alteration of the cerebral or generalized chemical physiology to which the brain, as well as other organs, demonstrates its susceptibility. Thus it is evident that at the time of the first convulsion, whether it be in infancy or adulthood, a proper appraisal of precipitating factors as well as causes should be made. By so doing one may avoid the tragedy of a lack of understanding and discover causes which may be remedied at an early date but which later may prove difficult to control. Ideas based on the belief that recurrent convulsions are due to "demons, trivial head injury, cosmic influences, emotional possession, bad teeth, septic tonsils, nasal polypi, refractive errors, phimosis, intes-

tinal worms," etc. do not account for the tendency to convulsions.

Pessimism must be replaced by optimism in the treatment of recurrent convulsive seizures. That there is reason for optimism is shown by a comparative analysis of the progress in the development of anticonvulsant drugs. A patient who had 20 attacks per month without medication will have 10 on bromide, 7 on phenobarbital and 2 or less on dilantin. Sixty-five per cent of selected persons with focal epilepsy, uncontrolled by medication, can be cured by surgical cortical resection. This comparatively recent addition to the epilepsy armamentarium has been proven most effective and provides for increased optimism.

The aim in medical or surgical treatment of epilepsy today is directed toward two goals: (1) elimination of clinical seizures, and (2) the establishment of normal cerebral neurophysiology. Unless the latter point is given due consideration the seizure habit will perpetuate itself and produce deleterious effects on the higher functional cerebral processes such as memory, thinking and abstract thought. A patient whose seizures are eliminated by medication and whose electrical neurophysiology (electroencephalogram) is rendered normal has a far superior therapeutic result than the patient who is free from convulsions but who continues to have subclinical physiologic manifestations. A person may have numerous subclinical electrical seizures and be entirely free from clinical attacks and yet deteriorate mentally. The subclinical seizures may cause atrophy. Cortical atrophy increases the likelihood of clinical seizures prior to the climacteric, and thus a vicious cycle is established.

The seizure habit is the lethal epitome of normal cerebral function whether it be at the clinical or subclinical level. Thus, the ideal time to initiate treatment in the epileptic patient is during the phase of relative clinical quiescence

and not during a period burdened with frequent attacks, since the fighting chance is in the former phase. The fact that many unexplained symptoms, such as dizziness, syncope, abdominal pain, headache and behavior disorders, when directly related to the epileptic-like abnormal neurophysiology, are subsequently eliminated by anticonvulsant drugs is evidence that a malfunctioning brain can cause almost any type of somatic complaint. The epileptic who is free of convulsions and yet persists in having syncope is demonstrating the failure to establish normal brain function.

Patients with convulsive disorders constitute approximately 10 per cent of the Nation's neurologic burden. Thus, from a purely economic viewpoint this problem can no longer be neglected. Through the united and sustained efforts of the neurosurgeon, neurologist, psychiatrist and all physicians this challenge can be met. Assisted by new drugs, highly developed surgical technics, electroencephalography and other specialized procedures, epilepsy can be conquered. The superstition, fear and despair of the past will be overcome.

ARTHUR A. MORRIS, M.D.

THE ROUTINE CHEST X-RAY OF GENERAL HOSPITAL ADMISSIONS

The value of the X-ray in the diagnosis of diseases of the chest has been recognized for some time. Often it reveals pathology before symptoms develop. An example of this is in the diagnosis of tuberculosis. Its routine use in this respect results in the discovery of a greater amount of early disease than is otherwise possible.

World War II was associated with the development of photo-roentgen technic using roll film. It is now possible to examine inexpensively large numbers of persons in a brief period of time. Service personnel, employee groups and large segments of the general population have been X-rayed with this recently perfected technic.

This wide use of mass chest X-ray surveys of apparently healthy people has resulted in the compilation of data on a scale never possible before this time. Pathology has been found in between 2 and 3 per cent of the population. Even more impressive results, however, have been obtained when routine X-rays have been made of general hospital admissions. Hodges now reports from the University of Michigan Hospital on a continuous program dating back to 1941. It involved 176,000 X-rays on both inpatients and outpatients. This represented 80 per cent of hospital admissions and yielded 5.4 per cent pathology confirmed by follow-up.

Good hospital practice includes routine admission blood count, blood serology and urinalysis. The reason for this is clear. Routine laboratory procedures detect early disease often overlooked by physical examination. Furthermore, diagnostic aids routinely employed for all patients safeguard the reputation of the hospital and staff and expedite final diagnosis. By the same token routine admission chest X-rays are good hospital practice because many dangerous chest conditions such as tuberculosis, cancer and heart disease can be found in the early stages only by this procedure. If these diseases are not found early permanent disability and premature death may result.

Another important aspect of this problem must be considered. Tuberculosis is an occupational disease in hospitals. Its infectious character gives it added significance. The protection of staff and patient is vital. An investigation of the records of any general hospital will disclose evidence of these facts.

Tuberculosis has always been one of the hazards of the medical profession. The indifference to its presence and the ignorance of its proximity have interfered with many professional careers.

William H. Oatway, Jr. in *Arizona Medicine* (January 1949) has described the advances that

have been made by hospitals throughout the country since photoroentgenography was first developed. A survey which he conducted among the 48 state health departments aided by information obtained from physicians and Tuberculosis Associations yielded the following: Of 4,539 general hospitals, so registered in 1947, 247 were taking routine admission X-rays.

His findings have been reprinted in summary in *Tuberculosis Abstracts*, April 1949, distributed to physicians of Washington by the District of Columbia Tuberculosis Association. Oatway points out that the patients admitted to general hospitals comprised 93 per cent of the 15,829,514 patients admitted to all hospitals. Oatway's brief questionnaire was designed to gather information on future plans of hospitals, size of film used, source of funds for the equipment and maintenance, and availability of cost data.

He concludes that "administration is a more

difficult obstacle than the cost of equipment" but he feels that the problems of administration, technical inconvenience, lack of an interested director, opposition of staff members, and exclusion of certain patient groups can be worked out. Gallinger Municipal Hospital and Freedmen's Hospital are two general hospitals in the District that have reported undertaking such a program. Alexandria Hospital has recently been added to these. Others such as Georgetown University Hospital and George Washington University Hospital have special equipment available but have not successfully solved all of their problems in making the procedure routine.

It is encouraging to note this progress. The experience of those who are routinely X-raying general hospital admissions should be very valuable to others.

JAMES J. FEFFER, M.D.

Member, Subcommittee on Tuberculosis

WASHINGTON PRESS COMMENTS ON COMPULSORY HEALTH INSURANCE*

EDITOR'S NOTE: The reactions of the Washington press to the controversial features of President Truman's national health legislation were most interesting. On the chance that many of the readers of the MEDICAL ANNALS have not read them they are published herewith.

MR. TRUMAN'S HEALTH PLAN*

One can read from beginning to end the President's message to Congress on medical care and he will not find in it the word compulsory.

Perhaps this is unimportant, for the essentials of the plan are clearly set out. Yet the omission of any reference to compulsion was not an accident. It was done by design, and it is a design that is not reassuring.

Compulsory health insurance, with the emphasis on compulsion, is the keystone of the program. Without this compulsion the whole structure would collapse. Yet Mr. Truman never uses the word, and it would be interesting to know why. Presumably he is concerned over widespread fears that compulsion in his plan would not stop with the insurance feature, but would go on to include compulsion

with respect to doctors, patients, hospitals and medical schools. Mr. Truman takes pains to deny that there is basis for these fears. But this would be more convincing if he did not try to gloss over even the compulsory aspect of the insurance program.

The principal criticism which lies against the plan itself, as distinguished from the manner of its presentation, is that Mr. Truman wants the Federal Government to bite off more than it can chew. He gives no cost estimate in his message, nor does he set out any specific plan for meeting the cost. Heretofore, however, he has indicated that he favors a payroll tax on both employers and employees to meet a cost which unofficial estimates have placed at \$4,000,000,000 in the first year, ranging up to well over \$5,000,000,000 in 10 years.

* Editorial in *The Evening Star*, April 23, 1949.

There are two things to be said about this. One is that the cost is too great, despite Mr. Truman's generalized contention to the contrary. After all, this is only one item on his domestic legislative program. Add them all together and the total assumes alarming proportions. The other has to do with the payroll tax plan, if that is what the President now has in mind. As Mr. Truman himself points out, the most urgent need for better health facilities and more doctors, dentists, etc., is in the rural areas. But how is it proposed to set up an effective payroll tax system in the rural areas? Or if this is not contemplated, how would the beneficiaries of the President's plan in the rural areas be required to pay their fair share of the cost?

Other criticisms, and they, too, may be well taken, run to the philosophy embodied in the assumption by the Federal Government of primary responsibility for the health of the people. At the present stage of the game this comes down to a matter of opinion,

although it should be pointed out that there is an impressive body of opinion, by no means confined to the American Medical Association, which holds that adoption of a plan such as the President has in mind would lead inevitably to state control of medicine. But even if Mr. Truman is right in his denial that such would be the result, the impression remains that he wants the central government to take on too much. The necessity for Federal aid in medicine is as self-evident as it is in housing and similar fields. But any program of Federal aid should rest on the premise that all of the people, as individuals, should do what they can to help themselves. Taxpayers in one locality should not be called upon to assist people in another locality unless the latter are willing to do the best they can for themselves. This result is more apt to be obtained through the medical program sponsored by Senators Taft, Smith and Donnell than through the plan advocated by Mr. Truman.

HEALTH PLAN HAZARDS*

President Truman's message of last week does not appear to have taken the country any closer to a Federal health insurance system. Chairman Thomas of the Senate Labor and Public Welfare Committee says that hearings will be held but the bill will not come before the Senate for action until next year, unless Congress is convened in special session. Apparently the crush of business in the Senate is not the only cause for delay. Seven of the 13 members of the committee are said to be committed to the voluntary health plans sponsored by Senators Taft and Hill. Unless ways of resolving the controversy can be found, the effect of the President's sponsorship of compulsory health insurance may thus be to delay the enactment of a practical program for expansion of our medical resources.

Four parts of Mr. Truman's plan are so similar to the proposals already before Congress, with strong support in both parties, that they may be regarded as being noncontroversial. He pointed to the acute shortage of doctors and nurses. Certainly medical schools and medical students must have help of some kind if enough doctors to give the

people complete medical care are to be trained. It should not be difficult for the Labor and Public Welfare Committee to work out a program for this purpose that would win general support. The same is true of grants for the construction of necessary hospitals. Undoubtedly the present program for this purpose should be expanded, and, as the President recommended, aid for health centers and various types of clinics may well be included.

Nor can there be any controversy over stepping up medical research. President Truman suggests also consolidation of various grants to the states for the support of public health activities, increasing the amounts of these grants and adjustment of the matching basis so that the poorer states would have a larger share of the funds. This proposal looks in the same direction as the Taft-Smith-Donnell bill. If the President would support a bill embodying these constructive provisions minus his controversial health insurance scheme, it would probably win overwhelming approval in both houses of Congress.

The President's own message makes clear the hazards of trying to set up a compulsory Federal health insurance system in the near future. "We

* Editorial in *The Washington Post*, April 25, 1949.

cannot, of course," he told Congress, "achieve our goals fully until the system has been in operation for some time." But the levying of payroll taxes for health would give everyone a right to demand full medical care immediately. Any realistic attempt to meet these demands would probably require a compulsory redistribution of doctors. And even if all doctors were forced into the system, they could not possibly meet all the demands that would suddenly be made of them.

The President contemplates no such drastic measures. In an effort to make his plan palatable to the doctors, he assures them that they would remain free to come into the system or stay out. Since a large majority of the doctors are hostile to the plan, it is only reasonable to assume that many would continue their practice outside the insurance system, thus

increasing the Government's difficulty in making good the pledge implicit in the collection of health insurance premiums.

Thus inaugurated prematurely, compulsory health insurance might take on the appearance of a gigantic fraud. The whole theory of health insurance, which has the advantage of throwing emphasis upon preventive medicine, could be discredited, and even the less ambitious voluntary plans and perhaps state experiments in this field might be discouraged. We cannot help thinking that a survey of what is feasible in this field should lead Congress to the enactment of a grants-in-aid health program without trying to pass judgment upon a compulsory insurance scheme that can have no practical application to present conditions.

COST OF MEDICAL CARE*

Chairman Elbert D. Thomas of the Senate Committee on Labor and Public Welfare candidly says that it is impossible to estimate how much it will cost to pay for the medical and hospital service to which the public would be entitled under the Administration's health insurance bill. It is reasonable to surmise, however, that it will cost more than the Government is now planning to spend. A worker earning \$2,400 would be taxed \$36 a year. A tax of equal amount would be paid in his behalf by his employer and the Government would add a contribution of \$12 for each of the first three years. In other words, a total of \$84 a year would go into the insurance fund in behalf of the \$2,400-a-year worker, and twice that sum in behalf of a worker with twice that income. In all cases the worker and members of his family would be entitled to complete medical, hospital and dental care, including eye-glasses, hearing aids and so forth.

If \$2,400 may be roughly regarded as an average income, it is difficult to see how \$84 could be stretched to cover so many benefits for a breadwinner and several members of his family. The unfortunate fact is that the average family now obtains only a fraction of the medical, dental and hospital

care that it ought to have. Under a system in which these important services would become the right of everyone, demands for medical care would expand enormously. Appropriate emphasis has been laid on the fact that the country does not now have the doctors, dentists, nurses, hospitals and clinics to render such complete service. It is also important to investigate whether there would ever be any hope of providing full medical care at the cost now contemplated.

Sponsors of the compulsory insurance bill seem to take it for granted that complete health care can be provided to all the people for little more than inadequate care for some of the people now costs. That seems to us a basic fallacy. Indeed, complete physical examinations once a year for all members of an average worker's family are likely to cost more than he would pay into the system. Such examinations are unquestionably desirable as the starting point for shifting medical care from an emergency to a preventive basis. But examinations along with hospital care and doctors' calls are expensive, and we doubt that they can be made less so by collecting insurance premiums in the form of taxes. Certainly this is a point that demands thorough exploration by the subcommittee to which the health insurance bill has been referred.

* Editorial in *The Washington Post*, April 28, 1949.

Washington Physicians of Yesterday



XLVIII. JOHN WESLEY BOVÉE, M.D.

Prominent in that noteworthy group of able Washington surgeons who in the closing decades of the nineteenth century participated in the development and practice of gynecological surgery, attaining equally high distinction with the leaders in the national as well as the local field, was Dr. John Wesley Bovée.

Born December 31, 1861, in Clayton, New York, Dr. Bovée obtained the degree of M.D. from Columbian (now George Washington) University in 1885. He then served internship in Children's and Columbia Hospitals, Washington, D. C., 1884-88, after which for the remainder of his life he engaged in active practice as a gynecologist in Washington. He served as gynecological surgeon and consultant on the staff of numerous local hospitals and other institutions, such as Washington Asylum, 1889-97; Columbia Hospital, 1890-1927; Providence Hospital, 1891-1908; George Washington University Hospital, from its opening in 1898 to 1926. As a teacher, he was Professor of Obstetrics and Gynecology in the Medical Department of the National University, 1890 to 1896; and in the Medical School of George Washington University he was Professor of Clinical Gynecology, 1896-1904, and of Gynecology, 1904 to 1926, when he retired as Emeritus.

Dr. Bovée was an active member and officer in many societies: the District of Columbia Medical Association he joined in 1886; District Medical Society, 1887, Vice President 1896, member of important committees; American

(Continued on page 334)

PREPAYMENT PLANS FOR MEDICAL CARE: HISTORY AND PRESENT STATUS*

G. HALSEY HUNT, M.D.

Member, Board of Trustees, Medical Service of the District of Columbia, Representing the United States Public Health Service

The Chinese and Mr. Bernard Shaw are said to share the notion that doctors should be paid for keeping people well. By contrast, European and American physicians in the past have usually been compensated for services rendered to sick patients.

For a variety of reasons which we do not have time to explore in this brief presentation, increasing emphasis is developing in American medical practice on technics which vary from partial equalization of sharing the financial burden of serious or prolonged illness on the insurance principle, to provision of virtually complete medical care, preventive and therapeutic, on a prepaid basis.

Historically, prepayment services were developed first for employees of certain hazardous industries, chiefly lumbering, mining, and railroading, established in areas remote from other medical facilities. The enactment of state workmen's compensation laws directly influenced this development. One of the first of these laws was passed in the state of Washington in 1911; it required that the employer compensate the worker for loss of earnings but did not make it compulsory for him to provide medical care. The Medical Aid Act passed in that state in 1917 required the employer and employee to contribute equal amounts to defray the cost of medical care for industrial accidents and injuries. Subsequently many groups of employees increased their share of contributions to finance medical services for all injuries and illness regardless of origin. A similar law providing for employer-employee contribution toward the cost of medical care was passed in Oregon in 1913. In the beginning, hospital associations or large commercial clinics furnished much of the medical care under these plans, but later medical service bureaus established by the county medical societies in Washington and Oregon shared in the provision of this service.

Other types of industrial medical care plans have also been developed in various sections of the country. In a few cases, the industry itself has established and financed the program and has required no contribution from employees, even when their dependents were included. Much more fre-

quently, employees, with or without employer coöperation, have set up their own prepayment medical care plans. These plans have usually been sponsored by employee mutual benefit associations, originally established to provide, among other benefits, financial assistance to employees and their families during severe illness or when death occurred.

In the 1920's and 1930's, some groups of physicians operating private clinics began to furnish medical care on a prepayment basis. Requests by groups of individuals for provision of medical care on this basis often stimulated the development of these private group plans.

Other plans have been established under the control of fraternal organizations, labor unions, coöperative associations, and other groups. These groups arrange for the care of members and their families either by employing doctors on a salary basis or by using some other method of payment.

Except for the medical society plans in Washington and Oregon, already mentioned, the most recent entrants into the field of prepayment medical care have been state and county medical societies. The Michigan State Medical Society started its plan in 1939; the California Society followed suit in 1940; and other state and county medical societies established plans subsequently. Many of the medical society plans utilize the administrative facilities of hospital service plans such as the Blue Cross.

All these prepayment programs have one or more of the following objectives: to effect a balance between medical charges and medical services by pooling risks and costs, to minimize overhead expenses, and to assure regular incomes for practitioners. In principle, all types of arrangements are alike in providing a mechanism for continuous availability of medical personnel and facilities and for protecting the individual or family from large medical expenditure at a time when illness cuts off income or adds other strains to the family budget.

Early in 1945 more than 5 million persons were enrolled for medical services in the 235 prepayment medical care plans in the United States, reported in the Social Security Board publication, "Prepayment Medical Care Organizations."¹ Of those 235

* Presented at the First Annual Meeting of MEDICAL SERVICE OF THE DISTRICT OF COLUMBIA, April 6, 1949.

plans, 116 were industrial plans, 57 medical society plans, 22 private group clinics, 32 consumer-sponsored plans, and 8 governmental plans.

The Council on Medical Service of the American Medical Association² reported that as of December 31, 1947, enrollment in medical society plans and/or plans approved by or cooperating with local hospitalization plans was approximately 7,400,000. On this date medical society plans in 38 states were enrolling subscribers, and 4 other states and the District of Columbia had plans organized and were to start enrolling subscribers early in 1948. In the District, enrollment began on April 1 and has progressed rapidly during the ensuing year.

In most medical society plans, including ours, coverage is limited to the surgical or obstetrical care of hospitalized patients; a few plans include non-surgical care in the hospital, and a very few include home and office care.

The only large scale plan in the country which offers virtually complete preventive and therapeutic medical care on a prepaid basis is the Health Insurance Plan of Greater New York. All service is furnished by organized groups of physicians, the

group as such being paid a flat annual fee for each subscriber (or dependent) on its rolls. Each subscriber is free within wide limits to choose—or change—his group.

To summarize briefly, we in the United States are carrying on a large scale series of experiments in providing medical care on a prepaid or insurance basis. The last word on the subject has by no means been spoken. The physicians who are participating in MEDICAL SERVICE OF THE DISTRICT OF COLUMBIA, its Board of Trustees, and the District Medical Society all have the responsibility and the opportunity to conduct their share of the experiment in the scientific spirit of developing a program that will best serve the patients, the physicians, and the community.

BIBLIOGRAPHY

1. KLEM, M. C.: Prepayment Medical Care Organizations, 3rd ed. Washington, D. C.: Federal Security Agency, Social Security Board, Bureau of Research and Statistics, June 1945.
2. Council on Medical Service, A.M.A.: Voluntary Prepayment Medical Care Plans. Chicago: American Medical Association, 1948.

ORIGIN OF MEDICAL SERVICE*

RAYMOND T. HOLDEN, M.D.

Member, Board of Trustees, Medical Service of the District of Columbia

In appraising the present status of our medical prepayment plan, the developments which led to its establishment should not be forgotten. These have considerable significance and might profitably be reviewed for the benefit of those who may have forgotten or are not familiar with them.

The Medical Society of the District of Columbia has long been interested in prepaid medicine. In fact, its interest dates from the early 1930's. One of the first tasks assigned the Executive Director of the Society when he took over his duties in 1938 was to develop a plan along the lines which were laid out for him by a committee which had been in existence for many months prior to his arrival.

You may recall that in 1939 a complete coverage

plan, known as MUTUAL HEALTH SERVICE, was approved by the Medical Society, and you know this plan did not become operative. Some criticism was leveled against the Society that it was not aggressive enough in pushing this plan. The fact is, that every effort was made to make it successful. At any rate, much was learned from this venture which was abandoned in 1940.

While this experience was naturally somewhat disheartening, it was evident that nationally prepaid medicine was becoming more widely accepted. The Medical Society therefore instructed its committees interested in such matters to continue their studies with the view of developing a more acceptable program at a later date.

During those years the American Medical Association became more aware of the public sentiment with respect to the budgeting of medical bills on a

* Presented at the First Annual Meeting of MEDICAL SERVICE OF THE DISTRICT OF COLUMBIA, April 6, 1949.

prepayment basis. By the 1940's the Association's House of Delegates had approved in principle both indemnity and medical service plans. In June 1944 the House implemented its previous actions by authorizing the AMA's Council on Medical Service and Public Relations to employ an expert in the field of prepaid medicine to assist medical societies throughout the country in the organization of prepayment medical plans.

By November 1945 it was obvious that the Council's efforts fell short of what was

required if prepayment plans were to enjoy healthy growth. The Medical Society of the District of Columbia had long urged the American Medical Association to develop a national health program. Finally its delegate, Dr. C. B. Conklin, introduced one of several resolutions when the Association's House of Delegates convened in Chicago, December 3, 1945. The Society's resolution provided that "the House instruct its Council on Medical Service and Public Relations to proceed as promptly as possible with the development of a specific national health program with emphasis upon the Nation-wide organization of locally administered prepayment medical plans sponsored by medical societies." This resolution was adopted by the House virtually verbatim and undoubtedly stimulated the organization of prepayment plans throughout the country.

So much then for the national background. The Medical Society's Committee on Medical Economics went to work seriously on a prepayment plan early in 1944. The Chairman of the Committee at the time was the late Dr. J. Lloyd Collins. Because of ill health he found it necessary to retire and Dr. Frank D. Costenbader took over and rendered outstanding service as Chairman of the Committee during the next two years. Under



Courtesy Washington Star

PHYSICIANS DISCUSS CANCER OVER WMAL

Aspects of cancer treatment and research were discussed over WMAL, *The Evening Star* station, April 28, by (left to right): Dr. Peter D. Comanduras, Medical Director of the District Division of the American Cancer Society; Dr. Harry H. Kerr, President of the Division; Moderator Byron Rash, special events director of WMAL; Dr. Calvin T. Klopp, Director of the Warwick Memorial Clinic for Cancer and Allied Diseases; and Dr. Murray M. Copeland, Professor of Oncology, Georgetown University School of Medicine.

his leadership, the Committee made a careful study of prepayment plans throughout the country. Some of these were observed firsthand by Dr. Costenbader and the Secretary of the Society, notably Michigan Medical Service and the Hospital Association of North Carolina. Finally a plan was evolved and presented at a special business meeting of the Society held on April 24, 1946. The Society voted that hearings should be sponsored by the Committee to give those who favored or opposed the plan an opportunity to state their views. Such hearings were held on May 17, May 29 and June 5, 1946. Helpful suggestions were offered by several who appeared before the Committee. The plan came before the Society again at a special business meeting on June 19, 1946 and was adopted.

Immediately following approval of the plan, a communication was directed to Mr. Joseph Himes, President of Group Hospitalization, Inc., requesting GHI to administer the business affairs of the plan, which was to be known as MEDICAL SERVICE OF THE DISTRICT OF COLUMBIA. You will hear more about this agreement in the Board of Trustees' report.

MEDICAL SERVICE was incorporated on October 16, 1946 and began operation, April 4, 1948.

PROCEEDINGS OF THE ANNUAL BUSINESS MEETING

The 1949 Annual Business Meeting and election of officers of the Medical Society of the District of Columbia, which was held on May 4, aroused considerable interest. It was estimated that about 350 physicians were on hand for the business meeting and the program which followed.

Dr. John Minor, President of the Society, presided. Reading of "Reports of Officers and Boards and A Review of Committee Activities for 1948-1949" was dispensed with since copies of the publication had been mailed in advance to all members of the Society. The reports were accepted by the Society as well as the Supplementary Report of the Executive Board, which was presented by its Chairman, Dr. William M. Ballinger.

Upon motion by Dr. Thomas E. Mattingly, the Society voted that a referendum be taken among its members to ascertain their views with respect to voluntary and compulsory health insurance.

The guest speaker, Dr. Clifford H. Keene, is Medical Director of the Kaiser-Frazer Corporation, of Willow Run, Michigan. His subject, "Prepaid Medical Care in Industry," was particularly timely.

ANNUAL REPORT OF THE CHAIRMAN OF THE EXECUTIVE BOARD

The Chairman, in presenting his report, described the Society of ten years ago as a "modest organization" compared with the "major undertaking" it is today. "Because the medical situation is becoming increasingly complex," he said, "the Society's activities will undoubtedly continue to expand, greater demands being made upon its officers and members."

The Chairman gave a brief review, by months, of the activities of the Board during the past year. Four amendments to the Society's Constitution and By-laws, Amendments XV, XVI, XVII and XVIII, were prepared by the Board and accepted by the Society. He presented to the Society for permanent membership 133 Active and 39 Associate members who had served a probationary period of at least a year.

With regret the Chairman reported the deaths of 20 members during the past year. They were: Drs. Charles W. Allen, Howard W. Barker, Robert M. Bolton, Louis B. Castell, Robert J. Conlon, Richard Lloyd Cook, George H. Crofton, Hugh S. Cumming, J. B. Gregg Custis, Michael P. DeVito,

Rowland H. Ford, Alma Fife Heath, Melvin P. Isaminger, Huron W. Lawson, Edward Larkin, James Lewald, Alfred C. Norcross, Robert C. Ruedy, Joseph P. Shearer and George T. Vaughan.

REPORT OF THE SECRETARY

In submitting his report the Secretary called attention to the demands made upon the Society's small staff caused by the unprecedented increase in the membership since the close of the War. He reported that MEDICAL BUREAU was still making spectacular growth, and that the number of individuals entitled to benefits under MEDICAL SERVICE OF THE DISTRICT OF COLUMBIA now exceeds 135,000.

The Society's membership on May 1, 1949, was the largest in its history. The figures for the past five years are as follows:

	1945	1946	1947	1948	1949
Active.....	931	978	1,114	1,197	1,267
Life.....	70	76	82	82	85
Associate.....	214	215	232	257	292
Honorary.....	9	9	11	15	16
Totals	1,224	1,278	2,439	1,551	1,660

The Secretary listed 203 meetings he had attended during the past year as spokesman for the Society or in his official capacity as Secretary of the Society and secretary of all boards and committees. A number of smaller meetings were, of course, not recorded.

A total of 2,790 members and guests attended the Society's 19th ANNUAL SCIENTIFIC ASSEMBLY, which was held at the Hotel Statler. The ASSEMBLY is now rated by commercial exhibitors as first among state meetings.

Satisfactory attendance was reported for the ANNUAL LECTURE SERIES, which were presented during April by the Committee on Post-graduate Education. The subject of the Series this year was "Viral and Rickettsial Diseases."

The Secretary continued his affiliation with a number of Washington organizations, such as the Washington Board of Trade, the Commissioners' Traffic Advisory Board, the new Health and Hospital Section of the United Community Services, the Interprofessional Conference of the District of

Columbia, the National Press Club, and the Rotary Club. He is a member of the Public Health Committee of the Washington Board of Trade and Chairman of its Subcommittee on Coöperation with Medical Societies and Other Associations.

Amazing growth of MEDICAL SERVICE OF THE DISTRICT OF COLUMBIA was shown by the reports read at its first annual meeting on April 6, 1949. On April 1, 1949, there were 63,712 subscribers, and 135,788 persons entitled to benefits under the plan. The number of participating physicians on the same date was 1,008, compared to 814 physicians who had signed agreements a year before. In addition there were 118 Coöperating physicians, i.e., physicians who are non-members of the District Medical Society but members of county medical societies in nearby Maryland and Virginia or the Medico-Chirurgical Society of the District of Columbia, Inc.

During the past year the enrollment of physicians, previously handled in the Society's offices, was taken over by Group Hospitalization, Inc., which administers the plan.

As Managing Editor of the MEDICAL ANNALS, the Secretary reported the present circulation of the journal as 2,250, compared with 2,200 in 1948. He himself is a regular contributor and conducts the column, "In and Out of Focus." The Editor, Dr. Wallace M. Yater, selects all scientific material, with the assistance of an Editorial Board, and approves all material for publication. A new member of the Board, Dr. R. Lee Spire, who is Chairman of the Section on General Practice, was appointed in December 1948. Because of the growth in the Society's publication, the Assistant Editor, Miss A. Louise Eckburg, now devotes her full time to the publication.

Gratifying progress in the operation of MEDICAL BUREAU, both as to number of subscribers and services rendered physicians and the public, has been reported annually by the Secretary. For the past three years the BUREAU has been operating efficiently under the capable management of Mr. J. Richard Connelly, Assistant Secretary of the Society. The total number of subscribers is now 621, of which 355 are subscribers to the Alternate Listing Service and 266 to the Telephone Secretarial (private wire) Service. This is an increase of 53 subscribers over the past year.

The Secretary continued as group treasurer for physician-subscribers to Group Hospitalization, Inc. During the past year the number of the group had increased by 110, making the total number of subscribers to GHI, 753.

The Secretary's speaking engagements during the past year included the AMA's First National Medical Public Relations Conference in St. Louis, November 27. He addressed medical students at both George Washington University and Howard University Schools of Medicine, and the resident staff at Surburban Hospital, Bethesda, Md. On September 23, 1948, he was guest speaker of the National Association of Medical and Dental Bureaus, at the Shoreham Hotel.

As a member of the Executive Committee of the Medical Societies Executives' Conference, he was an active participant in the Second Annual Meeting of the Conference in Chicago, June 23, 1948.

The Orientation Lectures, sponsored for the first time by the Membership Committee in April 1948, were attended by 192 new members of the Society. Although attendance was mandatory the Lectures were favorably received.

At the suggestion of the Secretary, the Executive Board voted to hold a Conference of Physicians' Secretaries, to be sponsored jointly with MEDICAL SERVICE OF THE DISTRICT OF COLUMBIA. Approximately 170 physicians' secretaries attended the Conference, March 31, and expressed their appreciation for the information they received about the history and activities of the Society, its MEDICAL BUREAU and medical journal, and the objectives and administration of MEDICAL SERVICE.

The report listed a number of special services which the Society extends to its members, such as the listing of available office employees; special mailings for Sections, smaller medical societies and individuals; cards for special parking privileges; sale of AMA's official automobile emblems; information on malpractice insurance, licensure, and so on.

In conclusion the Secretary expressed his appreciation to members of the office staff for faithful and efficient service and to the members of the staff of MEDICAL BUREAU for their excellent work and their courtesy in handling calls. He also expressed his gratitude to the Society's officers and members for the friendliness and consideration shown him and the office staff.

ELECTION OF OFFICERS

Two nominations were made at the March business meeting, in addition to the slate presented by the Nominating Committee. These nominations were for the offices of First Vice President and delegate to the American Medical Association. Except for the delegate and alternate delegate, the following officers were elected for the year beginning July 1:

President-elect: William M. Ballinger
 First Vice President: Samuel M. Dodek
 Second Vice President: Dorothy Jaeger-Lee
 Member of Executive Board: John Minor
 Member of Board of Censors: Richard V. Mattingly
 Delegate to American Medical Association: Hugh H. Hussey
 Alternate Delegate to AMA: Frederick C. Fishback

Dr. Walter Freeman will assume the presidency of the Society, July 1, 1949, and Dr. Ballinger will begin his term of office the following year, July 1, 1950. The delegate and alternate delegate will take office, January 1, 1950.

REPORT OF THE BOARD OF CENSORS

The Chairman reported that the Medical Society's membership was the largest in its history, a total of 1,660 members. From May 1, 1948 to

May 1, 1949 a total of 166 applicants were recommended to the Executive Board for election, in comparison with 176 the previous year. Although the applicants were not so numerous as during the years following the War, it appeared that the maximum number of members has not been reached. Indications are that the membership may exceed 2,000 in the next few years.

One addition was made to the list of Honorary members, Dr. Leonard A. Scheele, Surgeon General of the United States Public Health Service, who was elected to membership at the meeting of the Society, December 22, 1948 upon the recommendation of the Board of Censors.

Following the discontinuance of the Membership Committee, the Board assumed the responsibility for the Orientation Lectures which were so successful last year. The subjects and lecturers this year were: "Organization and Development of The Medical Society of the District of Columbia," by Dr. John Minor, the Society's President; "Medical Ethics—Their Practical Application," by Dr. Oscar B. Hunter; "Malpractice Problems," by J. Harry Welch, Legal Counsel for the United States Fidelity and Guaranty Company; and "Social and Economic Trends in Medicine," by Dr. Herbert P. Ramsey, Delegate to the American Medical Association.

SUPPLEMENTARY REPORT OF THE EXECUTIVE BOARD

Matters referred to in this report are those which were considered by your Board subsequent to the completion of the annual reports which were mailed to you a week or so ago. Some of these do not require your action but are included so that you will be informed in regard to the Board's activities.

It may be of interest to you that the Board holds its regular meetings on the fourth Monday of each month. Occasionally it is necessary to schedule meetings for some other date, but that is an infrequent occurrence. In fact, this has not occurred more than a dozen times in the last ten years.

Attendance at the meetings of the Board have been uniformly excellent. This is undoubtedly due to the fact that Board members are keenly aware of the responsibilities of the governing body of the Society. Meetings of the Board are held throughout

the year, there being no cessation in its activities during the summer.

Amendment XIX to the Society's Constitution and By-laws: Although this amendment appears on page 24 of the "Reports of Officers and Boards and a Review of Committee Activities for 1948-1949," which, as previously stated, was mailed to the membership prior to this meeting, it is repeated here for the reason that the Constitution and By-laws requires that amendments must be "proposed in writing" at a meeting of the Society preceding their adoption. The proposed amendment reads as follows:

AMENDMENT XIX

Section 1. Article I of Chapter VIII of the Constitution and By-laws is hereby amended by adding thereto the following:

10. Committee on Medical Ethics and Department

Section 2. Chapter VIII of the Constitution and By-laws is further amended by adding thereto the following:

ARTICLE XII. The Committee on Medical Ethics and Department shall consist of 12 members of the Society, whose tenures shall be as follows: 4 members shall be appointed for a period of 1 year; four members shall be appointed for a period of 2 years, and 4 members shall be appointed for a period of 3 years; on the expiration of the respective tenures of the members of the Committee, subsequent members shall be appointed for a period of 3 years. The Committee shall have power to act through Subcommittees. The Committee shall receive from member physicians complaints in matters of claims and suits arising from alleged malpractice, unethical or other conduct of such physicians; shall confer with such physicians and their counsel or representatives and consider all material, records and available information concerning such claims or suits; shall have power to summon and confer with members of the Society and shall advise the complaining physicians with respect to such claims or suits against them.

While the above amendment is self-explanatory, it would perhaps be well to state that your Board considers the committee created by it extremely important. The increase in malpractice suits has become a source of deep concern not only to physicians but to companies which write malpractice insurance. It is believed that this committee can do much to improve the situation in the District of Columbia.

This amendment cannot be acted upon at this meeting. It will be presented for adoption on May 11, 1949.

Instructions to the Society's Delegates to the AMA: As you know, the AMA's House of Delegates will meet in Atlantic City in June. Unless otherwise instructed, your delegates will exercise their judgment in voting on matters which come before the House. More often than not they have gone to meetings of the House uninstructed, although the Board has, on a few occasions, requested that resolutions be introduced. These have always come before this Society for its approval before being presented to the House.

At its last meeting, the Board voted to instruct the Society's delegates to introduce a resolution providing that whenever essential medical needs of the armed forces cannot be met in any other way a method of equitable selection from among V-12 and ASTP-trained physicians and those deferred to complete their medical education be developed.

Your Board need hardly comment on this action. It hopes that you will agree with the action taken.

Should the Society have any further instructions to the delegates, it can be taken up under new business.

AMA Interim Session, Washington, D.C., December 6-9, 1949: At a special business meeting of the Society held on December 22, 1948, you were informed that the Board had voted to extend an invitation to the American Medical Association to hold its 1951 Interim Session in Washington, D.C. It developed at the St. Louis meeting held in December 1948 that the AMA had concluded not to go to Tampa, Florida for its 1949 Interim Session. After some deliberation the AMA concluded that it would be desirable to hold its 1949 Session in Washington if it were agreeable to our Society. Your Board was pleased with the AMA's decision and promised its cooperation.

As stated above, the Session is scheduled for December 6 to 9, 1949. The local General Chairman is Dr. Oscar B. Hunter. He has appointed a number of committees to assist him. All of these appointments have been approved by your Board. A complete roster of the committees will be published in an early issue of the MEDICAL ANNALS.

Many demands will be made upon the local profession in connection with this meeting but your Board is confident that they will be met most adequately. This will be the first meeting of the American Medical Association in Washington since 1928.

Recommendations of Committees: At its meeting on April 11, 1949 the Cancer Control Committee adopted the following resolution:

WHEREAS the activities of the American Cancer Society which are made possible by donations received in their annual drive for funds serve an effective purpose in the field of treatment and research of cancer, the Cancer Control Committee recommends that The Medical Society of the District of Columbia endorse the 1949 Fund Drive of the American Cancer Society.

At the same meeting the Committee voted to recommend that the President of the Medical Society write a letter to the membership enclosing a pledge card and return envelope.

These actions were approved by the Executive Board which, by the way, passes on all Project Applications endorsed by the Cancer Control Committee during the year. Rules of the American Cancer Society require that each of the state units must submit all its expenditures for Projects for

approval by the governing body of the local medical society. These include monies authorized for support of cancer detection clinics, cancer research, and so on.

The Committee on Medical Care, at its meeting on April 15, 1949, voted to confer with District officials in regard to the domiciliary care for the indigent in Washington. This is a matter which the Committee considers most important and it will proceed to arrange this conference at the earliest possible moment.

Another matter upon which the Committee acted favorably was the proposal that a study be made in the District of Columbia to obtain current information on the costs of hospital illness and their relation to family income. The study would be a coöperative one under the sponsorship of the Medical Society, the hospitals in the District, and the U. S. Public Health Service. The Public Health Service has already agreed to coöperate but the hospitals have not yet been approached.

Such an investigation (it will be the first of its type) should prove revealing and helpful in developing medical care plans for the future. Public Health Service officials have estimated that it will require about eight months to complete. Those who would be assigned to make the survey are Dr. Antonio Ciocco and Mr. Isidore Altman, who, it will be recalled, made four significant studies during World War II to determine the number of practicing physicians in the District of Columbia as compared to population and their patient loads. The Board approved the Committee's recommendation.

Reciprocal Borderline Privileges for District of Columbia and Northern Virginia Physicians: Some months ago your Board was informed by Dr. George C. Ruhland, Secretary of the Commission on Licensure for the District of Columbia, that he was encountering difficulty with the Virginia Board of Medical Examiners in his effort to bring about a reciprocal arrangement between the two jurisdictions where borderline privileges for physicians in Northern Virginia and the District of Columbia were concerned.

It developed that the Board was powerless to act until the Virginia legislature enacted legislation which would authorize it to extend such privileges to District physicians. Dr. Ruhland was finally

advised that it was doubtful that favorable action would be taken by the legislature in regard to the matter, whereupon he notified Dr. K. D. Graves, Secretary of the Virginia Board of Medical Examiners, that privileges now extended by the District to Virginia physicians might be withdrawn unless some action was taken.

Dr. Ruhland kept the Society informed of these developments and stated that any help the Society could give would be welcome. Upon hearing of the situation the Executive Board authorized the Secretary to communicate with the nearby Alexandria City and Arlington and Fairfax County medical societies, setting forth the situation and asking for their support. The Alexandria City and Arlington County medical societies responded promptly.

Dr. John B. Leary, Secretary of the Arlington County Medical Society, stated that his organization had gone on record favoring action by the Virginia legislature which would enable the Virginia Board of Medical Examiners to issue reciprocal borderline privileges. Dr. Ben C. Jones, Jr., Secretary of the Alexandria City Medical Society, enclosed a copy of a letter written to Dr. Graves of the Virginia Board stating that members of the Alexandria Society were "very gravely concerned over the discontinuance of borderline reciprocity between Virginia and the District of Columbia."

"We who are in the area concerned in this matter of reciprocity," Dr. Jones continued, "feel that in the long run the only persons who would suffer from discontinuance of it would be the patients of the doctors barred from crossing the line between Virginia and the District of Columbia."

Drs. Leary and Jones stated that they were communicating with the Fairfax County Medical Society, from whom no word had yet been received.

The Board considers this an extremely important matter to the patients and physicians in both the District and in nearby Virginia counties, and it will keep the Society informed of developments.

20th Annual Scientific Assembly: The ASSEMBLY is scheduled to be held on October 17, 18 and 19, 1949. Reports received by your Board indicate that this meeting will be up to the high standards of previous ASSEMBLIES. Details in regard to the program and other phases of the 1949 ASSEMBLY will soon be available.

Legislative Situation: The newspapers are so

occupied with health legislation that it is hardly necessary to state that physicians are faced with a serious crisis in the field of medical care. Disturbing as the situation is, it now appears that final action will not be taken by Congress this year on any of the controversial health bills. However, one should not overlook the possibility of unforeseen developments. In view of the uncertainty of the future, the Board can only promise that it will not hesitate to call a special business meeting of the Society should conditions warrant.

In the meantime, members are urged to take time out to read the various medical care bills which have been introduced. The first of these is the Administration's bill, S. 1679; the second, S. 1581, intro-

duced by Senators Taft of Ohio, Smith of New Jersey, and Donnell of Missouri; and S. 1456, introduced by Senators Hill of Alabama, O'Connor of Maryland, Withers of Kentucky, Aiken of Vermont, and Morse of Oregon. Copies of these bills can be obtained by calling the Society's office, or if the physician feels he is too busy to read the bill in detail, an abstract of it will be made available to him.

It was never more important for doctors to familiarize themselves with health legislation.

Conclusion: Finally, your Board wishes you to know that it will welcome any suggestions which you have to offer. It is taking its responsibilities very seriously these days and it needs and will appreciate your help.

LICENSURE OF FOREIGN MEDICAL GRADUATES

The Committee on Foreign Medical Credentials, an unofficial body sponsored by the Council on Medical Education and Hospitals of the American Medical Association and composed of invited individuals from organizations interested in the problem of foreign physicians, is issuing for the information of the public and the governmental agencies concerned with the licensure of physicians, a summary of the problems involved in the licensing of foreign medical graduates and its recommendations for their solution.

The licensure of physicians who have received their medical degrees from foreign institutions seems certain to present a growing problem for the licensing bodies of the 48 states, the District of Columbia, the territories and outlying possessions of the United States, and for the National Board of Medical Examiners. The unsettled economic and political conditions in many parts of the world have already stimulated many physicians to migrate to the United States and it may be predicted that the number seeking to migrate will increase in the years ahead. In addition, each year a number of Americans enter foreign medical schools with the expectation of returning to the United States to practice. Some of these students study abroad because they are unable to gain admission to an American medical college while others do so by choice.

Two basic principles are involved in the licensure of physicians whether they be graduates of domestic

or foreign schools. The first principle is the requirement that a physician satisfy a licensing body representing the public as to his competency before he is permitted to practice. This principle is essential for the protection of the public. Without this requirement, the people of a community cannot distinguish those physicians who are competent to provide medical care from those who are not.

The second principle involved is that the training a man has undergone in preparing to enter a profession is a paramount factor in determining the quality of his professional practice. It must be admitted that exceptional men may rise above the limits of their training, but this achievement is frequently accomplished only after years of experience in practice and additional training.

An important corollary of this second principle is that the best assurance of the quality of the training that a physician has received is an intimate knowledge of the faculty, facilities, curriculum and standards of the medical school from which he has graduated. The art and science of conducting examinations has not yet advanced to the point where full reliance can be placed on the results of the type of examinations to which licensing boards are limited by considerations of practicality.

In licensing graduates of American and Canadian schools, the various state licensing boards have for many years had the benefit of the findings of periodic thorough surveys of these schools carried out by the

two accrediting bodies, the Council on Medical Education and Hospitals of the AMA and the Association of American Medical Colleges. Some of the state licensing boards supplement this information with investigations of their own although it is beyond the resources of most boards to inspect periodically all the 80 medical schools in the United States and Canada.

While it has been possible for these two accrediting agencies to maintain current appraisals of the quality of education offered by American and Canadian medical schools, it has been beyond their resources to attempt to maintain a similar inventory of the 300 or more medical schools in other parts of the world. For many years this was not important because the number of physicians migrating to the United States was small and most foreign-trained physicians came from medical schools that were well known in America.

Between 1930 and 1939 two developments occurred that entirely changed the situation. Unsettled and unfavorable conditions abroad prompted large numbers of physicians to migrate to this country. At the same time, internal developments in many countries led to a rapid deterioration in the quality of medical education. This change, which was readily apparent to American physicians traveling abroad in the years immediately prior to the War, was greatly accelerated when these countries became involved in World War II. The pressures of the War reduced the quality of medical education in all countries, including the United States, but in many countries the effect was catastrophic. Faculties were decimated, buildings, libraries and equipment were destroyed or badly damaged, all contact with scientific developments in other countries was interrupted, and standards were lowered in an effort to turn out large numbers of physicians to serve the armies of the warring nations. By the end of the War, medical education in other countries, with few exceptions, had degenerated to a degree that was shocking to those who had known these countries in the period up to 1930. While medical education in the United States recovered quickly from the War and is now at the highest point in its development, unsettled political and economic conditions in many foreign countries have prevented any similar recovery. Even more disturbing is the fact that some foreign countries appear to

be committed to educational policies that are so unsound and so inferior that there is serious doubt that satisfactory standards of medical education will be reestablished at any time in the foreseeable future.

It is against this background that the problem of the foreign-trained physicians must be studied. Their complete exclusion from the United States cannot be reconciled with the traditional role of this country as the land of opportunity. The fact that few foreign countries will admit the graduates of American medical schools to practice should not be accepted as a valid reason for pursuing a reciprocal policy. It is well, however, for the people to know that the United States is the most liberal of all countries in licensing physicians who have not graduated from their own schools.

Detailed current knowledge of foreign medical schools is indispensable for the guidance of state licensing boards in determining which foreign physicians have had sound training. It is essential that the various agencies concerned with this problem unite their resources and devise a satisfactory method for securing this information at the earliest possible date.

From such a study it should be possible to derive a list of foreign medical schools which have maintained during specific periods, or are now maintaining, educational programs sufficiently comparable to the training offered by the medical schools of this country to warrant the admission of their graduates to the examinations of the state licensing boards and the National Board of Medical Examiners.

As an added safeguard it would seem entirely reasonable that whenever a candidate cannot present evidence to a state licensing board that he is sufficiently familiar with recent scientific advances in medicine, with the practices and customs of American medicine, and with the English language, that he be required to take additional training in this country before being permitted to appear for examination.

The licensing bodies and the governments to which they are responsible have a heavy obligation to continue their efforts to maintain high standards of medical practice. They must also recognize that the spirit and tradition of America places upon them an obligation not to deny the op-

(Continued on page 334)

THE CARE OF HAND INJURIES*

III. SURFACE INJURIES

The first-aid care of wounds of the hand is directed fundamentally at protection. It should provide protection from infection, from added injury, and from future disability and deformity. The best first-aid management consists in the application of a sterile protective dressing and a firm compression bandage and immobilization by splinting in the position of function†. No attempt should be made to examine, cleanse, or treat the wound until operating-room facilities are available.

Early definitive care requires thorough evaluation of the injury with respect to its cause, time of occurrence, status as regards infection, nature of first-aid treatment, and appraisal of structural damage. For undertaking the definitive treatment the conditions required are a well-equipped operating room, good lighting, adequate instruments, sufficient assistance, complete anesthesia, and a bloodless field. The treatment itself consists of aseptic cleansing of the wound, removal of devitalized tissue and foreign material (strict conservation of all viable tissue being exercised), complete hemostasis, and the repair of injured structures, to be followed by protective dressing to maintain the optimum position. After-treatment consists of protection, rest and elevation during healing, and early restoration of function by directed active motion.

Burns, abrasions and avulsions may cause destruction and denudation of any area of the skin of the hand. The care of such injuries has three major objectives: (1) protection from infection; (2) early restoration of skin covering; (3) avoidance of disabling scarring and contractures.

These objectives are sought in the various stages of treatment outlined below.

1. First-aid treatment

* This is the third section of a presentation of the Principles of Early Management of Hand Injuries prepared for the Committee on Fractures and Other Traumas of the American College of Surgeons by the American Society for Surgery of the Hand. The first section, on General Principles of Protection, appeared in the July 1948 issue of the *ANNALS*, and the second, on Requirements of Early Definitive Treatment, in the November 1948 issue.

† Position of function or position of grasp: wrist hyperextended in cock-up position; fingers in mid-flexion and separated; thumb abducted and in mid-flexion, with tip pointing toward little finger.

a. Chemical burns

Remove chemical by profuse irrigation with water, preferably warm.

b. Heat burns, abrasions and chemical burns (after washing away the injuring agent)

Apply sterile dressing completely to cover the hand and bandage firmly.

2. Definitive treatment. This should be carried on in an operating room under conditions of strict asepsis (draping of field, use of sterile gloves, masking of operator and attendants).

a. Gentle removal of first-aid dressing, soaking loose with normal saline solution if necessary.

b. Gentle cleansing of injured surface by light sponging with saline on cotton balls. If surface is dirty or greasy, it may be gently cleansed with sterile neutral soap in sterile water or bland detergent. Loose fragments and tags of skin are removed. Blisters are not opened.

c. Sterile strips of fine-mesh vaseline-impregnated gauze are smoothly applied to the injured surface. These are covered with dry sterile gauze, the gauze being placed between adjacent fingers. The whole hand is covered with a thick layer of sterile mechanic's waste or fluff gauze, and splinted in the position of function. Elastic knit bandage is applied over all, including all fingers, with firm, even pressure. The hand is kept elevated.

3. Subsequent dressings. The original dressing is left undisturbed for 12 to 14 days unless elevation of temperature suggests active infection requiring inspection. The second, and all subsequent dressings until healing, are done under completely aseptic conditions (as described above). Preparations for skin grafting should be made in advance.

a. The dressing is removed. Slough and débris are washed away by irrigation with normal saline solution (no scrubbing of surface).

b. Granulating areas from which slough has separated should be covered with thin split-thickness skin grafts.

c. Dressing, similar to that employed at first definitive treatment, is applied. Hand is splinted in position of function.

d. Further dressings, similarly conducted, are

done at intervals of 7 days until epithelization of burned surface is complete. Skin coverage by grafting should be secured as rapidly as possible, as the best assurance against infection, inflammation, infiltration, scarring and contractures. This early coverage by "skin dressing" is of the greatest importance, even when epithelization from the margins is proceeding satisfactorily.

Split-thickness grafts are best for this purpose, even though it is anticipated that some of grafted area must later be removed for replacement by more suitable skin.

4. Restoration of function. As soon as epithelization of burned surfaces is complete, directed active use and exercise of the hand are begun. Normal use of the hand is encouraged and voluntary exercise and appropriate occupational therapy prescribed.

MEDICAL BOWLERS COMPLETE EIGHTH SEASON

The Eighth Annual Dinner of the D. C. Medical Duckpin League was held, April 20, at the Brook Farm Tea House in Chevy Chase. Dr. George H. McLain, President of the League, was toastmaster. Arch McDonald, well known Washington sports announcer, was the principal speaker and awarded the prizes.

For the second consecutive year Mt. Alto and George Washington teams ran first and second, respectively. The remainder of the places changed somewhat, with Garfield No. 2 coming in third, Sibley No. 1 fourth, and Columbia fifth, in a sixteen-team league composed principally of doctors.

Members of the winning teams were as follows:

Mt. Alto: Dr. Alfred Dibbs, *Captain*; Drs. Louis H. Shuman, Ambrose H. Cook, and Herbert A. Goldberg, and Messrs. Paul Duffy and Kenneth Clark.

George Washington: Dr. John W. Price, *Captain*; Drs.

Maurice Van Kinsbergen, Blaine H. Eig, Bernard A. Fitzgerald and Dee Rich Parkinson, and Mr. Frank Baiers.

Garfield No. 2: Dr. Frank S. Bacon, *Captain*; Drs. George A. Resta, John A. Kennedy, Thomas J. Pekin, Israel Kessler and John W. Nesbitt.

Sibley No. 1: Dr. Richard J. McNulty, *Captain*; Drs. John F. Finnegan, Francis X. Richardson, Joseph F. Belair, William H. Clements and John P. D'Angelo.

Columbia: Dr. J. Earl Kadan, *Captain*; Drs. D. Franklin Hodge, Joseph M. Cocimano and Howard A. Donald and Messrs. Irwin Sealfon and Wilfred Boyer.

Prizes were also awarded to the following individuals for high scores:

High League Average

First	Mr. Baiers	109-60
Second	Dr. Richardson	109-43
Third	Dr. Kessler	109-5
Fourth	Dr. Resta	108-32

High Individual Set

First	Dr. McLain	380
Second	Mr. Clark	374
Third	Dr. Charles Hageage	372

High Individual Game

First	Dr. Fitzgerald	154
Second	Dr. Roy G. Klepser	147
Third	Dr. Finnegan	146

High Strikes

First	Dr. McNulty	37
Second	Dr. Millard F. Ottman	37
Third	Dr. Alfred Wilson	36

High Spares

First	Dr. Cook	161
Second	Dr. J. Phelps Hand	154
Third	Mr. Kendall Twigg	152



**Eighth Annual Dinner
D. C. Medical Duckpin League**

High Average—Each Team

Mt. Alto	Dr. Cook	107-7
George Washington	Mr. Baiers	109-60
Garfield No. 2	Dr. Kessler	109-5
Sibley No. 1	Dr. Richardson	109-43
Columbia	Dr. Kadan	106-60
Suburbanites	Dr. Ottman	106-33
Sibley No. 2	Dr. Hand	106-28
Georgetown	Dr. Klepser	103-1
Garfield No. 1	Dr. William G. Cushard	102-69
Prince Georges	Mr. Twigg	106-43
Good Hoppers	Dr. Wilson	105-5
Providence No. 1	Dr. Stephen A. McCarthy	98-42
Doctors	Dr. Allen S. Lloyd	101-48
Providence No. 2	Dr. George L. Ball	104-41

Following the regular season a sweepstakes is always held. Winners this year were: Dr. Ottman 382, Dr. Warren B. Burch 378, Mr. Twigg 370, and Dr. Belair 358. Dr. Finnegan took high game with 128. Dr. Richardson was second with 125.

A feature of play this year was a players' pool of potential bowlers. When regular bowlers were unable to attend, or when a regular bowler for a team was needed, those who had been listed with the Secretary, Mr. William B. Cochrane, were called upon to fill the need. Any doctor who wishes to compete regularly beginning with the fall season should communicate his intention to Mr. Cochrane, or to Dr. McLain, President, or Dr. Ottman, Vice President, of the League.

WOMAN'S AUXILIARY NOTES

The Woman's Auxiliary to the Medical Society of the District of Columbia elected new officers at its last meeting of the season, which was held in the Medical Society's library, May 11. Mrs. Edgar E. Quayle, President of the Auxiliary, presided.

Mrs. Walter Freeman, the new President, will take office, July 1. Other officers elected were: Mrs. Oscar B. Hunter, First Vice President; Mrs. J. Lawn Thompson, Sr., Second Vice President; Mrs. Duane Richtmeyer, Recording Secretary; Mrs. George J. Stuart, Corresponding Secretary; and Mrs. James E. Wissler, Treasurer.

The Auxiliary selected its delegates to attend the meetings of the Woman's Auxiliary to the American Medical Association in Atlantic City, New Jersey, June 6-9. They are Mmes. Quayle, Samuel A.

Alexander, Frederick J. Cullen and A. Frank Kreglow; alternate delegates are Mmes. Richtmeyer, Stuart, Edgar W. Davis and Elmer W. Fugitt.

Following the business meeting the Annual Spring Luncheon was held at the Shoreham Hotel.

MRS. MARCEL J. FORET
Publicity Chairman

MEMBERSHIP

The following applicants for membership will be voted on at the meeting of the Executive Board, June 27, 1949:

For Active Membership

Earl Bower Barnes, University of Texas—1939
John D. Brady, Georgetown University—1941
Leon R. Culbertson, University of Virginia—1936
Marvin P. Footer, George Washington University—1942
Lawrence F. Greenleigh, University of California—1947
Dan B. Greer, University of Tennessee—1943
Allen E. Henkin, George Washington University—1942
Thomas Ashton Wilson, George Washington University—1944

The following applicants for membership will be voted on at the meeting of the Executive Board, July 25, 1949:

For Active Membership

William O. Bailey, Jr., George Washington University—1940
John J. Curry, Tufts Medical College—1938
Blaine H. Eig, Georgetown University—1945
Albert D. Kistin, Rush Medical College—1935
James P. Scanlon, Jefferson Medical College—1940

For Associate Membership

Wesley C. Cox, Columbia University—1916
Charles Heilman, Middlesex University—1934

Recent changes in membership status:

Active to Associate

Robert A. Bier
Henry S. Murphy
John E. Sherburne
James J. Tamasi
Sophie C. Trent

*Resigned**Active*

George D. Denton
Herman Kabat

Associate

Charles G. Hoyt

News and Personals

The American College of Physicians announces that a limited number of Fellowships in Medicine will be available from July 1, 1950 to June 30, 1951. These fellowships are designed to provide an opportunity for research training either in the basic medical sciences or in the application of these sciences to clinical investigation. They are for the benefit of physicians who are in the early stages of their preparation for a teaching and investigative career in internal medicine. Assurance must be provided that the applicant will be acceptable in the laboratory or clinic of his choice and that he will be provided with the facilities necessary for the proper pursuit of his work. The stipend will be from \$2,200 to \$3,200.

Application forms may be secured on request from the American College of Physicians, 4200 Pine Street, Philadelphia 4, Pa., and must be submitted in duplicate not later than October 1, 1949. Announcement of awards will be made in November, 1949.

Major General Malcolm C. Grow, the Air Surgeon, has announced the initiation of a **General Practice Branch in the Air Surgeon's Office** to be charged with the development of training opportunities and careers for general practitioners serving at USAF installations. Under the proposed residency program the general practitioners would have access to the latest technical developments in medical and surgical specialties. Special emphasis will be placed on internal medicine, surgical practices, pediatrics and obstetrics.

Public health officers to serve in a civilian capacity with the occupational forces in Japan are urgently needed by the Department of the Army. These positions, which involve supervision of Japanese prefecture (state) health departments in all phases of preventive medicine and medical care programs, offer an excellent opportunity for broad experience in public health.

Minimum requirements for qualification are a

CALENDAR OF MEETINGS

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|--------|--|
| May 4 | Annual Business Meeting of Society |
| May 5 | Section on Neurology and Psychiatry
Executive Board, Woman's Auxiliary |
| May 6 | Committee on Radio, Television and
Motion Pictures, Annual Scientific
Assembly
Washington Heart Association |
| May 7 | Orientation Lecture II |
| May 9 | Committee on Emergency Medical Service
Graduate Nurses' Association |
| May 10 | Grievance Committee
District Dental Society |
| May 11 | Scientific Meeting of Society
Committee on Scientific Exhibits, A.S.A.
Woman's Auxiliary
Board of Trustees, Medical Service |
| May 17 | D. C. Medical Technicians |
| May 18 | Clinical Society of the Diabetes Association of D. C. |
| May 19 | Section on Radiology |
| May 20 | Physician-Veterans of World War II |
| May 21 | Washington Society of Pathologists |
| May 23 | Executive Board
Board of Censors
Committee on Cancer Control
Washington Orthopedic Club |
| May 24 | Committee on Public Relations
Attendance Committee, A.S.A.
Clinical Society of the Diabetes Association of D. C. |
| May 26 | Section on Anesthesiology |
| May 27 | Section on General Practice
D. C. Rheumatism Society |
| May 31 | Pregraduation ceremonies of George
Washington University School of
Medicine |

degree in medicine plus one year internship. Experience in public health is desirable but not mandatory.

The salary is \$6,235.20 per annum plus 10 per cent post differential with quarters provided at no cost to the employee. Individuals selected for appointment must agree to remain a minimum of two years. Transportation is furnished to and from Japan. Dependents may join the employee in approximately 6 to 8 months after his arrival in the command.

Interested applicants may secure Civil Service Commission Standard Form 57 from any Class A Post Office, which should be submitted to the Chief of the Recruitment Section, Overseas Affairs Branch, Civilian Personnel Division, Department of the Army, Washington 25, D. C.

The Washington Camp for Diabetic Children will be open during the month of July, 1949 at the Christ Child Farm for Convalescent Children, Rockville, Md. This is one of thirteen diabetic camps in the United States operated during the summer months for diabetic children and was the seventh such camp established in this country. Application blanks may be obtained from Dr. K. Hammond Mish, 1726 Eye Street, N.W.

Prizes in the contest sponsored by the **Section on General Practice** were awarded to nine Washington high school students at a special program in the Medical Society's auditorium, May 27. Ninety-four essays on the subject, "The Family Doctor," were submitted. Mrs. Eugene Meyer, of *The Washington Post*, was the guest speaker; music was furnished by the Eastern High School Boys' Glee Club. Dr. R. Lee Spire, Chairman of the Section, presided and awarded the prizes.

The awards consisted of \$100, \$75 and \$50 for the three best essays submitted, and six awards of \$20 each were given to the students who received honorable mention. The winners were as follows:

First Award: Nancy R. Fisher, 15 years, Grade 11, of the Sidwell Friends School

Second Award: Diane Ruth Carroll, 16 years, Grade 11, Georgetown Visitation Convent

Third Award: Nancy Helena Dahl, 16 years, Grade 10-B, Western High School

The above essays will be published in an early issue of the **MEDICAL ANNALS**.

Honorable Mention: Roberta Patton, St. Anthony's High School; Mary Lucretia Detwiler, St. Cecilia's High School; Margie Sue Hauser, Immaculate

Conception Academy; James Raymond Hall, St. Paul's Academy; Florence M. Cawthorne, Dunbar High School; and Joan Louise Ruth, Eastern High School.

Dr. A. Claggett Gray was Chairman of the Essay Contest Committee. Judges were Dr. Elmer L. Kayser, Dean of the Division of University Students, George Washington University; Dr. Franklin B. Williams, Jr., Associate Professor of English, Georgetown University; and Theodore Wiprud, Secretary of the District Medical Society.

Officers elected by the **Section on Radiology**, May 19, were:

Dr. Joseph F. Belair, *Chairman*; Dr. William Stanbro, *Vice Chairman*; Dr. Karl Corley, *Secretary-Treasurer*.

Dr. Alfred A. J. Den was nominated Counselor for the District of Columbia of the American College of Radiologists and representative on the General Committee for the Eastern Conference of Radiologists.

At the meeting of the **Section on Neurology and Psychiatry** in the Medical Society's library, May 5, the following program was presented: "The Use of Potassium in Protracted Insulin Coma—A Preliminary Report," Dr. William Stark; "Localized Encephalitis: A Neuropsychiatric Syndrome; Report of a Case," Drs. James P. Murphy, Meta Neumann and George D. Weickhardt.

The **Section on Gastroenterology** held election of officers, May 9. They are:

Dr. Richard E. Dunkley, *Chairman*; Dr. Edward W. Nicklas, *Vice Chairman*; Dr. Wyrth Post Baker, *Secretary-Treasurer*.

Members of the **Section on Anesthesiology** heard a clinical report on "Curare in Obstetrics" by Dr. Howard Katzman, May 26, in the Medical Society's auditorium. Dr. Samuel M. Dodek led the discussion.

Members of the **Physical Medicine Group of the District of Columbia** were guests of the Physical Medicine Rehabilitation Service of Veterans Administration, Dr. A. B. C. Knudson, Chief, on May 4. This group of physicians, known as the

Doctors' Breakfast Group, has held monthly meetings of an informal nature for years.

After breakfast in the dining room of the RFC, the doctors adjourned to Room 121 of the VA Building, where the following aspects of the VA Physical Medical Rehabilitation program were presented:

"Rehabilitation of the Hard of Hearing," Dr. Aram Glorig and Dr. Merle Ansberry, Chief and Assistant Chief, respectively, of Audiology and Speech Correction, and "Rehabilitation of the Blind," Mr. Chas. W. Bledsoe, Consultant for the Rehabilitation of the Blind.

The program closed with a showing of the VA movie, "Prescription for Work," with introductory remarks by Mr. Robert E. Ingalls, Chief of the Manual Arts Therapy.

A new quarterly publication, *The Courier of the George Washington University Hospital*, made its appearance in April. *The Courier* is sponsored by the Women's Board of the Hospital and was launched by the Board in celebration of its 50th anniversary. It will be devoted to news of the hospital, including "research and discovery there, of the fine equipment available and of the special service it can give the community and the Nation."

Mrs. Cloyd H. Marvin is Editor of the quarterly and Miss Margaret Davis, Associate Editor. Serving on the Editorial Board of Review are Dr. Cloyd H. Marvin, President of the University; Dr. Walter A. Bloedorn, Dean of the Medical School; Dr. Winfred Overholser, Superintendent of St. Elizabeths Hospital; and Dr. Walter Freeman, who assumes the office of President of the District Medical Society on July 1.

The District of Columbia Tuberculosis Association held its 47th annual meeting at Barker Hall, Y. W. C. A., April 26, beginning at noon. Dr. Walter L. Nalls, former Clinical Director of the Veterans Administration Facility, Oteen, N. C., gave an address on "Streptomycin in the Treatment of Tuberculosis." William E. Leahy, Chairman of the Citizens' Committee, Washington Chest X-Ray Survey, described the present tuberculosis situation in the District of Columbia.

The program was followed by election of members to the Board of Directors. Re-elected for a three-year term were Dr. James J. Feffer, Mrs. Alice C.

Hunter, Dr. Robert S. Jason and Norman J. Nelson. Elected for a three-year term were: Carter T. Barron, Richard J. Gray, Dr. Hugh H. Hussey, Mrs. Julian Loewus, Frank D. Norton and Edward B. Persons; for a two-year term, Joseph H. B. Evans; for a one-year term, Bernard L. Amiss, Laurence M. Blumenfeld, and Andrew L. Lindsay.

The Board of Directors met to elect officers, May 10. Mr. Leahy was chosen President of the Association, succeeding Mrs. C. D. Lowe, who has held the post for two years and will continue as a member of the Board. Other officers elected were: Dr. Howard M. Payne, Vice President; Dr. Thelma Hunt, Secretary; and Mr. Amiss, Treasurer. The Executive Committee for the coming year will consist of the four officers and Dr. Feffer, Charles E. Bish and Mr. Persons.

The 12th Annual Meeting of the Medical Society of St. Elizabeths Hospital was held in Hitchcock Hall, April 29 and 30. Moderators for the morning sessions were Drs. Theodore C. C. Fong and Roscoe W. Hall, and for the afternoon sessions, Drs. Morris Kleinerman and Samuel A. Silk.

Of particular interest was the Symposium on the Psychiatric Clinic. Among the speakers were Dr. Robert R. Morris, head of the Montgomery County Mental Hygiene Clinic; Dr. William Granatir, Director of the Washington Institute of Mental Hygiene; Dr. Robert C. Burnham, head of the Arlington County Mental Hygiene Clinic; Dr. Henry J. Myers, and Dr. Henry P. Laughlin. Discussion was led by Dr. Kleinerman, the Moderator.

In addition to the above, papers were contributed by Drs. Walter Freeman, George D. Weickhardt, Addison M. Duval, Benjamin Karpman, Joseph Abrahams, Watson W. Eldridge, Solomon Katzenelbogen, and Francis J. Tartaglino. Among discussants of papers were Drs. Duval, Hall, Nolan D. C. Lewis, Harold Stevens, Stanley Olinick, Albert Ackerman, Winfred Overholser, Evelyn Reichenbach, and Norman Taub.

On Friday evening, April 29, Dr. and Mrs. Overholser entertained members of the Society and guests at a buffet supper in their apartment.

New officers elected at the morning session, April 29, were:

Dr. Kleinerman, *President*; Dr. J. Peter Murphy, *Vice President*; Dr. Taub, *Secretary-Treasurer*.

A copy of the *International Digest of Health Legislation*, a new publication issued by the World Health Organization, has been received in the Medical Society's office. The Introduction in the first number gives an explanation of the background and purpose of the *Digest*: "It will consist of reprints and translations of, or extracts from the texts of the most important laws and regulations dealing with public health and related subjects adopted in different countries, and, with the coöperation of governments, it is hoped to make this collection comprehensive."

The Diabetes Association of the District of Columbia sponsored two panel discussions recently, one, on February 22, at Garfield Memorial Hospital, and the other, March 10, at Arlington Hospital. Dr. K. Hammond Mish acted as moderator at both. The subjects and speakers were: "Pregnancy Complicating Diabetes," Dr. E. Clarence Rice; "The Treatment of Juvenile Diabetes," Dr. John E. Cassidy; "The Management of Diabetes during Surgery," Dr. Lawrence A. Rapee; and "The Use of Insulin in the Treatment of Diabetes," Dr. Mish.

The Association also sponsored a lecture on "Newer Aspects of Coma States in Diabetes Mellitus" by Dr. Harold E. Himwich, Chief of the Chemical Research Branch of the Army Chemical Center, in the Medical Society's auditorium, May 18.

The Medical Society of the District of Columbia participated with the medical societies of Arizona and Oklahoma in a Nation-wide radio broadcast, May 7, over NBC. Theodore Wiprud described some of the facilities available to the public in Washington through the District Medical Society.



Courtesy Washington Star

DR. HILDENBRAND RECEIVING THE GIBSON AWARD

Left to right: Dr. Joseph F. Belair, President of the Washington Medical and Surgical Society; Dr. Emil J. C. Hildenbrand; Dr. George H. McLain, Chairman of the Awards Committee; and Dr. Frank E. Gibson, in whose honor the Award is given each year by the Society at its annual banquet.

The Washington Medical and Surgical Society held its 52nd annual meeting and banquet at the Hotel Willard, May 12. Dr. Joseph F. Belair, President of the Society, presided. Guest speaker was Commander J. M. Amberson, M.C., U.S.N.R., who spoke on "Navy Medicine in Africa."

The outstanding event of the evening was the presentation of the Frank E. Gibson certificate, which was awarded this year to Dr. Emil J. C. Hildenbrand by Dr. George H. McClain, Chairman of the Awards Committee. The paper which won the award for Dr. Hildenbrand was entitled "The Surgical Approach in Hypertension." Dr. Hildenbrand is Associate Professor of Surgery at Georgetown University School of Medicine and head of the Physical Therapy Department of Garfield Memorial Hospital.

Dr. James A. Dusbabek was in charge of arrangements for the banquet.

The Society elected new officers for 1949-50 at its meeting in April. They are:

Dr. J. Keith Cromer, *President*; Dr. Clyde Reeves, *Vice President*; Dr. Walter O. Teichmann, *Secretary*; and Dr. Frank E. Gibson, Sr., *Permanent Treasurer*.

The Louis Mackall Medical Society held its annual outing, May 25, at the Kenwood Country Club.

Golf was played in the afternoon, followed by dinner in the evening at the Clubhouse. Dr. H. Franklin Kreuzburg was Chairman of the Banquet Committee.

The **Osler Society** held its last meeting of the season, May 16, at the home of Dr. Thomas McP. Brown in Arlington, Va. Dr. Joseph F. Fazekas presented a paper on "Clinical Significance of Cerebral Metabolism."

The **Alexandria City Medical Society** has elected new officers, as follows: Dr. Charles V. Amole, President; Dr. W. E. Baker, Vice President; and Dr. Milton Stein, Secretary-Treasurer.

Dr. **James A. Doull**, Medical Director, USPHS, has been appointed Medical Director of the **Leonard Wood Memorial** (American Leprosy Foundation). The headquarters of the Medical Department of the Memorial has been transferred from Culion, P. I., to 1832 M Street, N.W., Washington, D. C.

Dr. **Herbert P. Ramsey**, the Medical Society's delegate to the American Medical Association, addressed the Public Health Committee of the Washington Board of Trade at a luncheon meeting, May 3, on the subject of "Compulsory Health Insurance (Socialized Medicine)." As a result of his talk, Chairman F. H. Kenworthy of the Committee appointed a group of members to summarize the talk in order to present it to the Board's Executive Committee. Appointed to make the summary were B. B. Derrick, Ray H. Everett, C. W. O'Donnell and Theodore Wiprud.

Dr. **Addison M. Duval** attended the Annual Convention of the District Congress of Parents and Teachers, which was held in Washington, May 4 and 5. Dr. Duval was instrumental in securing the passage of a resolution by that body urging coöperation between health and school departments in setting up a psychiatric aid program in the public schools.

Two appointments at **Gallinger Municipal Hospital** of particular interest to Washington physicians have recently been made by the District Commissioners. The first is the appointment of **Dr. Philip**

A. E. Stebbing as Superintendent succeeding **Dr. Alvin R. Sweeney**, who resigned May 15 after serving as Superintendent since 1944. Dr. Stebbing has held the position of Assistant Superintendent in charge of the Medical Division. He is a graduate of Georgetown University School of Medicine, 1930, and interned at Gallinger. After two years of private practice he became admitting officer at Gallinger and later chief resident physician. During the War he served in Army hospitals in New Zealand and Saipan. He returned to duty at Gallinger in 1946.

Another recent appointment is that of **Dr. Joseph F. Fazekas** to the post of Chief of Staff, succeeding **Dr. P. S. Rossiter**, whose resignation was submitted to the Commissioners some time ago. Dr. Rossiter is a retired Naval officer, holding the rank of Rear Admiral.

Since the latter is an interim appointment, Dr. Fazekas will hold the title of Acting Chief of Staff until the position has been classified as required by law. Dr. Fazekas entered the Albany, New York, Medical College after ten years of research in physiology and pharmacology. After working at the Pratt Diagnostic Institute in Boston for several years, he came to Gallinger as Chief Medical Officer in July, 1948.

Dr. **Jay McLean**, who came to Washington in October, 1947 to organize and direct the District Bureau of Cancer Control, submitted his resignation to the District Commissioners, effective May 13. He has been succeeded by **Dr. Charlotte Donlon**, who comes from Savannah, Georgia, where she was on the staff of the Savannah Tumor Clinic.

Dr. Donlon received her medical degree from Women's Medical College of Pennsylvania, Philadelphia, in 1937. Following graduation she served as attending physician at the New York Infirmary for Women and Children. From February until October, 1947, she was instructor in radiology at Columbia University College of Physicians and Surgeons and assistant radiologist at Vanderbilt Clinic and Presbyterian Hospital, New York. Since October 1947 she has served as director of radiotherapy at the Savannah Clinic. She is author of a cancer control pamphlet, "Cancer and Common Sense."

Dr. McLean has moved to Savannah, Ga., where

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. Most of these engagements were filled through the Society's Speakers Bureau, which is headed by Dr. James A. Gannon.

Date	Speaker	Subject or Title	Organization
April 6	Dr. James A. O'Keeffe	Proposed National Health Program	Miner Teachers' College
May 3	Dr. James A. Gannon	Compulsory Medical Insurance	Columbia Heights Citizens' Association
May 4	Dr. James A. Gannon	Facts and Fallacies of Medicine	Crestwood Citizens' Association
May 10	Dr. Walter A. Bloedorn	The Healthy Heart	Washington Club
May 10	Dr. Herbert P. Ramsey	National Health Insurance	Public Lay Health Council of Montgomery County

he will enter private practice and serve at a private clinic.

Dr. Walter A. Bloedorn, Dean of the George Washington University School of Medicine, addressed the Conference on Postgraduate Medical Education, which met in Battle Creek, Michigan, May 18, under the sponsorship of the W. K. Kellogg Foundation. He spoke on the use of audiovisual aids in medical education.

Dr. Bloedorn has been instrumental in the opening of the Medical Film Institute through which slides and movies may be borrowed by medical schools. He served as Chairman of the Audiovisual Aid Committee of the American Medical Colleges, which recently completed a two-year study in this field.

Dr. Oscar B. Hunter represented the American Medical Association during the inaugural ceremonies, April 30 and May 1, for The Very Reverend Hunter Guthrie, S.J., who was formally installed as the 35th President of Georgetown University. The appointment of Dr. Hunter was made by Dr. Elmer L. Henderson, Chairman of the AMA Board of Trustees. Dr. Hunter is a member of the faculty of Georgetown University School of Medicine.

Dr. James F. Mitchell was presented with a scroll and an honorary deputy fire chief badge by Fire Chief Clement Murphy in ceremonies at the Fire

Department headquarters, May 16. Chief Murphy described Dr. Mitchell as a "long and outstanding friend of the police and fire departments." Dr. Mitchell was Chief Surgeon of Emergency Hospital until his retirement two years ago and is Professor Emeritus of Clinical Surgery at George Washington University.

Dr. Wallace M. Yater participated in a Postgraduate Course in Cardiovascular Diseases, which was held under the auspices of the American College of Physicians in Philadelphia, May 4. He lectured on the subjects, "Anti-coagulant Therapy" and "Pulmonary Arteriovenous Fistula," and took part in a Panel Discussion on Thrombosis and Embolism.

At the meeting of the **Executive Board**, April 26, **Dr. Henry C. Macatee** and **Dr. William Earl Clark** were appointed representatives to the United Community Services General Assembly for the ensuing year.

Dr. Leopold E. Wexberg, Director of the Bureau of Mental Hygiene of the District Health Department, was appointed by the District Commissioners, April 21, to head the Alcoholic Clinic authorized by Congress in August, 1947 under the Hebert Act. Dr. Wexberg will assume the new duties at the Alcoholic Clinic in addition to his present ones.

Dr. Murray M. Copeland, Professor of Oncology of Georgetown University School of Medicine, fulfilled a number of speaking engagements during the month of May. He addressed the Surgeon's Travel Club, May 4, on the subject of "Breast Tumors." Later in the month he was in Milwaukee, Wisconsin, where he spoke before the Milwaukee Academy of Medicine, May 17, on "Newer Aspects of Benign Breast Tumors." The following day he addressed the student body and faculty of Marquette University Medical School on "Bone Tumors." On May 19 he attended a Tumor Clinic at the Milwaukee County General Hospital and the Tumor Board meeting at the Veterans Hospital.

Dr. Oscar B. Hunter, who has urged the use of the Harger drunkometer for testing intoxicated drivers in the District of Columbia, participated in a radio forum on the subject, "Should Congress Legalize Drunk Tests for the District of Columbia?" Other speakers on the forum, which was heard over WOL, May 10, were Clark King, an Assistant Corporation counsel; P. Bateman Ennis, attorney; and K. Robert Hahn, Moderator.

Dr. Joseph S. Lawrence addressed the Columbia Chapter of the Alumni of the College of Medical Evangelists, April 24, on the subject of prepaid medical care. The meeting was held at the Washington Sanitarium in Takoma Park, Md.

Theodore Wiprud, Secretary of the District Medical Society, was invited to participate in a symposium held by the American College Public Relations Association in the Hotel Washington, April 29. Other participants were Watson Davis, Director of *Science Service*; F. Barrows Colton of the *National Geographic Magazine*; Dr. George Gamow, physicist of George Washington University; Richard C. Lee, public relations director of Yale; and Thomas R. Henry, of *The Washington Star*.

Dr. Emil J. C. Hildenbrand gave the commencement address to the graduating class of nurses of Cambridge Hospital in Cambridge, Md.

Dr. Paul R. Wilner delivered an address on "Physiopathology of Acute Renal Failure" at the Jewish Hospital of Philadelphia, April 6.

Dr. Jason Geiger will leave Washington, July 1, 1949, for Cleveland, Ohio, to begin a fellowship in internal medicine at the Cleveland Clinic. Dr. Geiger expects to be away from Washington for two or three years.

Dr. Julius Neviasser addressed the Annual Alumni Meeting of the Hospital for Joint Diseases in New York, May 12, on "Adhesive Capsulitis of the Shoulder."

Dr. Lawrence C. Kolb has accepted a position as Consultant in Psychiatry at the Mayo Clinic, Rochester, Minn., commencing July 1.

Robert P. Bryant, Executive Secretary of the Hospital Council of the National Capital Area, resigned, May 3, to become administrator of the University Club in Albany, New York.

Philip Morris is featuring a double spread, "In Tribute to the American Doctor," in this issue of the *ANNALS*, pages viii and ix. A copy suitable for framing may be obtained upon request. The sentiment expressed is particularly appropriate for a physician's reception room.

CORRESPONDENCE

ARLINGTON, VA., April 27, 1949

WALLACE M. YATER, M.D., EDITOR
MEDICAL ANNALS OF D.C.

DEAR DR. YATER:

I have just finished reading the article entitled "Government Trained Physicians Urged to Volunteer for Armed Forces" in the April '49 issue of the *ANNALS*. This article states that the Medical Advisory Committee feels that two groups of doctors owe an obligation to volunteer for service, those who received the benefits of ASTP and V-12 programs but subsequently performed little or no service and those who were deferred to complete their education at their own expense.

There is another group who are more in need because of their superior training and experience and who owe even more of an obligation. I refer to those who, although physically and mentally qualified, were deferred as essential for teaching and other purposes. What has been done to induce these men to volunteer?

I would also like to know what the Armed Services

have done to eliminate those factors to which most medical men objected in the Service?

Sincerely,
JOHN O. NESTOR, M.D.

Washington, D. C., April 25, 1949

MR. THEODORE WIPRUD
SEC'Y OF THE WASHINGTON
MEDICAL SOCIETY
1718 M STREET, N.W.
WASHINGTON, D. C.

DEAR TED:

Our staff and our Board of Trustees were highly pleased with the description of Group Health Association published in the recent issue of the News Letter.

I have had favorable comments from members to whose attention this letter has come. I think you did an excellent job in describing all of the plans.

Thanks again.

Sincerely yours,
MELVIN L. DOLLAR
Executive Director,
Group Health Association, Inc.

BOOK REVIEW

Your Baby: The Complete Baby Book for Mothers and Fathers. GLADYS DENNY SHULTZ, Contributing Editor, *Ladies' Home Journal*, AND LEE FORREST HILL, M.D., Former President, American Academy of Pediatrics. Photography by Joseph Di Pietro; line drawings by Reisie Lonette. Price, \$3.50. Pp. 278. New York: Doubleday, 1948.

The list of publications which can be classified loosely as "Baby Books" has grown a great deal in the past ten to fifteen years. The care of the baby and child training in the light of studies made under scientific conditions, and the consequent changes in theory and practical application have been of great interest to the newly initiated parent and to the several-times parent. The trend has been away from the rigid schedule and the "let him cry it out" school, the aim a two-fold one: an easier and pleasanter introduction for the child into the very complex business of becoming an individual able to give and take with his fellows; and a decided attempt to change the grim duties and responsibilities expected of a parent of fifteen years ago into enjoyment of the baby and child, along with a thoughtful guidance of the child into the habits and behavior patterns which will be expected of him by society.

Mrs. Shultz and Dr. Hill have incorporated in their book most of the latest approved ideas on baby and child training and care, based on their personal ex-

perience and observation. Mrs. Shultz, for example, gives a very interesting and informative account of her personal experience with her new granddaughter on a Self-regulating Schedule in which she lists the benefits to all concerned and points out the dangers of taking the term too literally. Suggested schedules, based on this self-regulating system, are given for each of the first eight months and then for the ninth month, fifteenth month, eighteenth month and the two-year-old.

For the new parents there are some very practical ideas, suggestions and methods, and in all sections of the book there are answers to a great many of the uncertainties and fears which crop up almost daily and about which one so often hesitates to question the busy pediatrician. One portion of the book gives explicit directions, well and charmingly illustrated, as to how to bathe the baby, oil bath, sponge bath and tub bath, and there are instructions on folding diapers, how to pick up and hold the baby, how to prepare a formula and the attendant sterilizing, how best to give the breast or the bottle. There are instructions for special formulas and their preparation, a universal formula with methods of modifying the fresh or the evaporated milk formula as the baby's needs change. Diet lists for use during pregnancy and for the nursing mother, diet requirements for the baby at various ages with suggestions intended to bypass feeding problems as the child grows, and recipes for the first foods and for later requirements—all of these are gone into in some detail. Some very helpful material on thumb sucking, toilet training, negativism and other common and often difficult problems of babyhood and childhood is given.

The preface of the book points out the importance and necessity of the male parent contributing his part in the whole pattern, through pregnancy on. A good bit of the material in the book is addressed to the father (actually to "you, Dad," a form of address which becomes slightly irritating in its almost "cute" tone, at least to this reader). The suggestions made for the father's participation are in most cases excellent and should contribute to a more closely knit family life but their feasibility will be dependent of course on the circumstances of the father's working hours as well as his interest and ability.

The authors have covered their subject quite completely and the book should be of great help to new parents and a source of reference and provocative thought for all parents of preschool children.

KATHRYN S. DERRY

Note: On page 138, at the bottom of the page there is a printer's error—omission of part of a sentence or possibly sentences.

BOOKS RECEIVED FOR REVIEW

Acknowledgment is made of the following books which have been received for review:

Handbook of Materia Medica, Toxicology, and Pharmacology, 4th ed. FORREST RAMON DAVISON, B.A., M.Sc., Ph.D., M.B., Consultant and Toxicologist, Minneapolis, Minn.; formerly Assistant Professor of Pharmacology in the School of Medicine, University of Arkansas, Little Rock; Medical Department, The Upjohn Company, Kalamazoo, Mich.; Assistant Professor of Pharmacology, University of Tennessee Medical School; Toxicologist to University Clinics, Memphis, Tenn. Price, \$8.50. Pp. 730, with 35 illustrations, including 4 in color. St. Louis: Mosby, 1949.

Care of the Surgical Patient, Including Pathologic Physiology and Principles of Diagnosis and Treatment. JACOB FINE, M.D., Surgeon-in-chief, Beth Israel Hospital; Professor of Surgery, Beth Israel Hospital, Harvard Medical School. Price, \$8.00. Pp. 544. Philadelphia: Saunders, 1949.

The Salicylates: A Critical Bibliographic Review. MARTIN GROSS, M.D., Research Assistant (Assistant Professor), Laboratory of Applied Physiology, Yale University, AND LEON A. GREENBERG, Ph.D., Associate Professor, Applied Physiology, Yale University, with an introduction by HOWARD W. HAGGARD, M.D., Director, Laboratory of Applied Physiology, Yale University. Price, \$6.00. Pp. 380. New Haven, Conn.: Hillhouse Press, 1948.

Clinical Auscultation of the Heart. SAMUEL A. LEVINE, M.D., Clinical Professor of Medicine, Harvard Medical School Physician, Peter Bent Brigham Hospital, AND W. PROCTOR HARVEY, M.D., Research Fellow in Medicine, Harvard Medical School Assistant in Medicine, Peter Bent Brigham Hospital. Price, \$6.50. Pp. 327, with 286 figures. Philadelphia: Saunders, 1949.

Nutrition and Diet in Health and Disease, 5th ed. JAMES S. MCLESTER, M.D., Professor of Medicine, University of Alabama, Birmingham. Price, \$9.00. Pp. 800. Philadelphia: Saunders, 1949.

How to Become a Doctor: A Complete Guide to the Study of Medicine, Dentistry, Pharmacy, Veterinarian Medicine, Occupational Therapy, Chiropody and Foot Surgery, Optometry, Hospital Administration, Medical Illustration, and the Sciences. GEORGE R. MOON, A.B., M.A., Examiner and Recorder, University of Illinois Colleges of Medicine,

Dentistry and Pharmacy. Price, \$2.00. Pp. 131, illustrated. Philadelphia: Blakiston, 1949.

The American Nurses Dictionary: The Definition and Pronunciation of Terms in the Nursing Vocabulary. ALICE L. PRICE, B.S., R.N., Instructor of Nursing Arts at Columbia Hospital, Milwaukee. Price, \$3.75. Pp. 656. Philadelphia: Saunders, 1949.

Fundamentals of Internal Medicine, 3rd ed. WALLACE MASON YATER, A.B., M.D., M.S. (in Med.), F.A.C.P., Director, Yater Clinic, Washington, D. C.; formerly Professor of Medicine and Director of the Department of Medicine, Georgetown University School of Medicine; Physician-in-chief, Georgetown University Hospital; Physician-in-chief, Gallinger Municipal Hospital, Washington, D. C.; and Fellow in Medicine, The Mayo Foundation. Price, \$12.00. Pp. 1451, with 315 figures. New York: Appleton-Century-Crofts, 1949.

Acknowledgment is also made of the following reference books:

The Ciba Collection of Medical Illustrations: A Compilation of Pathological and Anatomical Paintings, prepared by FRANK H. NETTER, M.D. Price, \$6.50. Pp. 222, with 191 full-color plates. Summit, N. J.: Ciba Pharmaceutical Products, 1948.

Physicians' Desk Reference to Pharmaceutical Specialties and Biologicals, 1949. Pp. 520. Rutherford, N. J.: Medical Economics.

Proceedings of the Fourth International Congresses on Tropical Medicine and Malaria, sponsored by the Department of State, Washington, D. C., May 10-18, 1948. Volume 1, pp. 946; volume 2, pp. 947-1810. Washington, D. C.: Government Printing Office, 1948.

Veterans Administration Technical Bulletins, Series 10, vol. 2, 1948, Washington 25, D. C.

Blood Viscosity Test—Shadid

(Continued from page 289)

it higher. When serial tests are done, it is recommended that the same needle and syringe be used on the same patient. Needles and syringes should be checked with normal blood

about once a week, and new needles and syringes should first be given routine cleaning and checked with normal blood before being put into regular use. As a further check against technical errors no abnormal result in a new subject is accepted as such unless repeated in at least 3 tests.

SUMMARY AND CONCLUSIONS

1. A *modus operandi* whereby blood fluidity is decreased and its possible role in the causation of thrombo-embolic disease has been outlined.

2. A simple, bedside test for the determination of blood fluidity as indicated by viscosity has been described and discussed.

3. The results obtained by the use of the test on 75 normal subjects, 16 patients with thrombo-embolic disease, 1 patient with a bleeding diathesis, and 10 unknowns have been mentioned, and they indicate that there is a significant correlation between increased blood viscosity and thrombo-embolic diseases.

4. The test is probably useful in anticipating thrombo-embolic complications and in determining the type of treatment, particularly when to give and when to stop anticoagulant therapy.

N.B. This test is not a guide for dosage in anticoagulant therapy. Dosage should be based on daily determinations of prothrombin time for dicumerol and coagulation time for heparin.

BIBLIOGRAPHY

1. BEST, C. H., AND TAYLOR, N. B.: The Physiological Basis of Medical Practice, 4th ed. Baltimore: Williams & Wilkins, 1945.

Aureomycin—Schoenbach

(Continued from page 293)

6. LITTLE, P. A.: Ann. New York Acad. Sc., 1948, 51, 246.
7. BRYER, M. S., SCHOENBACH, E. S., BLISS, E. A., AND CHANDLER, C. A.: Ibid., 1948, 51, 254.
8. WONG, S. C., AND COX, H. R.: Ibid., 1948, 51, 290.
9. ANIGSTEIN, L., WHITNEY, D. M., AND BENINSON, J.: Ibid., 1948, 51, 306.
10. HARNED, B. K., AND OTHERS: Ibid., 1948, 51, 182.
11. SCHOENBACH, E. B., BRYER, M. S., AND LONG, P. H.: Ibid., 1948, 51, 267.

12. COLLINS, H. S., PAINE, T. F., JR., AND FINLAND, M.: Ibid., 1948, 51, 231.
13. BRYER, M. S., SCHOENBACH, E. B., WOOD, R. M., AND LONG, P. H.: Bull. Johns Hopkins Hosp., 1949, 44, 444.
14. SPINK, W. W., BRAUDE, A. I., CASTENEDA, M. R., AND GOYTIA, S. R.: J. A. M. A., 1948, 138, 1145.
15. COLLINS, H. S., PAINE, T. F., JR., WELLS, E. B., AND FINLAND, M.: Ann. Int. Med., 1948, 29, 1077.
16. CHANDLER, C. A., SCHOENBACH, E. B., AND BRYER, M. S.: J. Pediat., in press.
17. SCHOENBACH, E. B., AND BRYER, M. S.: J. A. M. A., 1949, 139, 275.
18. KNEELAND, Y., JR., ROSE, H. M., AND GIBSON, C. D.: Am. J. Med., 1949, 6, 41.
19. FINLAND, M., COLLINS, H. S. AND WELLS, E. B.: New England J. Med., 1949, 240, 241.
20. SCHOENBACH, E. B.: J. A. M. A., 1949, 139, 450.
21. ROSS, S., AND OTHERS: Ibid., 1948, 138, 1213.
22. DOWLING, H. F., LEPPER, M. H., SWEET, L. K., AND BRICKHOUSE, R. L.: Ann. New York Acad. Sc., 1948, 51, 241.
23. HARREL, G. T., MEADS, M., AND STEVENS, K.: South. M. J., 1949, 42, 4.
24. COOKE, C.: J. A. M. A., 1948, 138, 885.
25. LENNETTE, E. H., MEIKLEJOHN, G., AND THELEN, H. M.: Ann. New York Acad. Sc., 1948, 51, 331.
26. WRIGHT, L. T., AND OTHERS: Ibid., 1948, 51, 318.
27. WRIGHT, L. T., AND OTHERS: J. A. M. A., 1948, 138, 408.
28. Personal communications.

Intravenous Therapy and Blood Substitutes—White

(Continued from page 297)

fate of dextran in the body. Because of this, dextran cannot yet be unreservedly recommended for widespread use. Nevertheless, in the investigation made in this trial, it has not been shown to produce harmful effect in the tissues, and further investigation is recommended."

Conrad Bloch¹³ of the University of Chicago has done some outstanding pioneer work in tracing the destiny of some proteins, notably glycine, methionine and arginine by means of tagged molecules and tracer technics. We may look forward to intriguing developments in this field.

I am of the opinion that more general use should be made of the Fisher, Hartman and Ringer solutions in preference to normal saline, since they are certainly superior in acidosis and alkalosis, conditions which are not uncommon in surgical practice.

The intravenous route is preferable in the use of all the fluids I have mentioned, although it is possible to give most of them intramuscularly or intraosseously, but the occasions when it is necessary to use routes other than the vein should be rare indeed.

BIBLIOGRAPHY

1. CRILE, G. W.: *Ann. Surg.*, 1907, **46**, 329.
2. COLLIER, F. A., CROOK, C. E., AND IOB, V.: *J. A. M. A.*, 1944, **126**, 1.
3. ELMAN, R.: *Parenteral Alimentation in Surgery*. New York: Hoeber, 1947.
4. RAVDIN, I. S.: *S. Clin. North America*, 1946, **26**, 1306.
5. CO TUI: *Ann. New York Acad. Sc.*, 1946, **47**, 359.
6. LUNDY, J. S.: Personal communication.
7. TAYLOR, N. B., AND WATERS, E. T.: *Canad. M. A. J.*, 1941, **44**, 547.
8. HARTMAN, F. W., SCHELLING, V., BRUSH, B., AND WARREN, K. W.: *J. A. M. A.*, 1943, **121**, 1337.
9. MEYER, K. A., KOZOLL, D. D., POPPER, H., AND STEIGMANN, F.: *Surg., Gynec. & Obst.*, 1944, **78**, 327.

10. WHITE, C. S., AND DAVIS, H. A.: *Proc. Soc. Exper. Biol. & Med.*, 1938, **38**, 462.
11. BULL, J. P., AND OTHERS: *Lancet*, 1949, **256**, 134.
12. GRONWALL, A., AND INGELMAN, B.: *Nature, London*, 1945, **155**, 45.
13. BLOCH, C.: Paper presented at the Atlanta Postgraduate Assembly, Atlanta, Ga., January 24-26, 1949.

Licensing of Foreign Physicians

(Continued from page 320)

portunity to practice his profession to any citizen or prospective citizen who can demonstrate satisfactory qualifications as to his professional competence and character.

If the problem of the foreign medical graduate is approached in this spirit, the Committee on Foreign Medical Credentials is confident that it will be solved without lowering the standards of American medicine and in a manner consistent with our national ideals of justice and humanitarianism.

Washington Physicians of Yesterday—Bovée

(Continued from page 310)

Medical Association, Chairman of Section on Gynecology 1907; Washington Medical and Surgical Society, President 1892-93; Washington Obstetrical and Gynecological Society, President 1903-05; Southern Surgical and Gynecological Association, President 1903; American Gynecological Society, Fellow 1897, Treasurer 1909-15, President 1916, member of its Council; American Urological Association, a founder; American College of Surgeons, a founder, and member of its Board of Governors 1914-27; Cosmos Club from 1902; and others, including honorary membership in many organizations. He was memorialized in "Who's Who in America."

Dr. Bovée was a prolific contributor to medical literature, a compilation of his bibliography listing 142 articles. He was Editor of Bovée's "Practice of Gynecology," 1906, and he rendered editorial service on various periodicals.

Dr. Bovée thus attained high eminence as an able surgeon and a national leader and authority in his field; and he was a man of forcefulness and spirit. He bore a striking facial resemblance to Kaiser Wilhelm II—a resemblance which he did not fail to cultivate in the trim of his mustache. He accumulated a large library of about a thousand volumes on obstetrics and gynecology, which in his will he bequeathed to the Medical Society.

Dr. Bovée died September 3, 1927, after an illness of eleven weeks. A special memorial meeting in his honor was held by the Medical Society on December 3, 1927, at which tributes of esteem and appreciation were presented by local members and by notable friends and visitors from various other cities.

JOHN B. NICHOLS, M.D.

MEDICAL ANNALS

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AUREOMYCIN IN VARIOUS INFECTIONS: REPORT OF ONE HUNDRED EIGHTY CASES AND REVIEW OF THE CLINICAL LITERATURE*†

HARRY F. DOWLING, M.D., F.A.C.P.
MARK H. LEPPER, M.D.
ESTON R. CALDWELL, JR., M.D.
RICHARD L. WHELTON, M.D.
LEWIS K. SWEET, M.D.

Washington

AUREOMYCIN† is an antibiotic recently isolated from *Streptomyces aureofaciens*, which has been described as a new species of fungus by Duggar.¹ It has pronounced antirickettsial and antibacterial activity as well as some antiviral and antispirochetal effect in vitro and in animals. The therapeutic potential, coupled with low toxicity in animals, makes this a promising drug. On the basis of several reports which have been published on the clinical use of aureomycin, plus our own experience in the treatment of 180 patients, we are making at this time a preliminary appraisal of its effectiveness in various diseases.

* From the George Washington University Medical Division and the Infectious Disease Service, Gallinger Municipal Hospital, and the Departments of Medicine and Pediatrics, George Washington University School of Medicine.

† Read before the Society, February 16, 1949.

‡ Supplied by the Lederle Laboratories Division, American Cyanamid Company, Pearl River, New York.

LABORATORY DATA

Chemistry. The drug has been supplied as the hydrochloride in ampules and capsules. It is relatively insoluble around pH 7, but is 4 per cent soluble at pH 2.5 and pH 8.5.² It loses potency under certain conditions, being most stable in acid solutions^{2, 3, 4} and at higher concentrations.^{4, 5, 6} Serum inhibits the antibiotic activity,^{3, 4, 7, 8} although this effect is not obtained by serum albumin alone.³ High temperatures accelerate the loss of potency. At 56°C. the inactivation is rapid with a progressive decrease in the rate of loss of potency as the temperature is lowered.^{3, 4, 5, 7, 8, 9} Aureomycin solutions are most stable when frozen at minus 20°C.⁴ From our work we believe that determinations of the serum concentration may be made after 24 hours' refrigeration.

Potential field of therapeutic action. Aureomycin

has been shown to inhibit the growth of many bacteria *in vitro*.^{3, 4, 5, 7, 8, 9, 10, 11, 12, 13} Gram-positive cocci and nonpathogenic bacilli are quite sensitive to its action. Most of the common gram-negative pathogens have also been found to be rather sensitive, except for some strains of *Proteus* and *Pseudomonas*.

Several investigators have shown that bacteria do not readily develop resistance following exposure to the antibiotic *in vitro* and *in vivo*.^{4, 6, 9, 11} In animals some protection has been found against experimental infections by *S. typhosa*, *E. coli*, *Kl. pneumonia*, *Pr. vulgaris*, *Ery. rhusiopathiae*, *hemolytic streptococci*, *pneumococci*, and *Brucella*.^{9, 10, 12, 14, 15}

of 300 to 700 mg. in adults. In general 250 mg. every 3 hours or 500 mg. every 6 hours will maintain a serum concentration of about 2 to 4 micrograms per c.c. after several days of therapy. Intramuscular use of the drug has been temporarily abandoned because of excessive pain at the site of injection, and to date intravenous therapy has not been worked out on a practical basis.

Our results^{13, 20} indicate that the absorption of aureomycin into the cerebrospinal fluid is dependent upon both the serum concentration and the duration of therapy and is not necessarily dependent upon the presence of acute inflammation of the meninges. Demonstrable amounts

TABLE 1
Results of Aureomycin Treatment in Patients with Coccal Infections

DISEASE	PATIENTS TREATED BY US			PATIENTS REPORTED BY OTHERS			ALL PATIENTS		
	Good	Doubtful	Failed	Good	Doubtful	Failed	Good	Doubtful	Failed
Pneumococcal pneumonia	41	—	2	4	—	—	45	—	2
Pneumonia—clinically pneumonia but no type obtained	6	—	1	—	—	—	6	—	1
Pneumococcal meningitis	1	—	—	—	—	—	1	—	—
Beta-hemolytic streptococcal infections	11	—	—	—	—	—	11	—	—
Alpha and gamma streptococcal endocarditis	1	—	2	—	—	—	1	—	2
Staphylococcal infections	3	—	—	5	—	—	8	—	—
Gonococcal urethritis	—	—	—	49	11	6	49	11	6
Meningococcemia	—	—	—	1	—	—	1	—	—

Among the rickettsial and viral infections good results have been obtained with the psittacosis-lymphogranuloma virus and the rickettsiae of spotted fever, typhus fever, scrub typhus fever, and Q fever.^{16, 17} Among the smaller viruses which have been studied there was no evidence of any virucidal activity except possibly in the case of mumps.¹⁶ Antispirochetal activity has been reported.^{18, 19}

Absorption, distribution and excretion. Studies of the serum concentrations made in man and animals^{3, 5, 6, 10, 11, 15, 19, 20, 21, 22, 23} indicate that the drug is absorbed regularly when given by mouth and that adequate concentrations are present for 6 to 8 hours after a single oral dose

are uniformly present after 24 hours of therapy, and in a few patients they occur much earlier if the serum level is high. Aureomycin has been shown not to penetrate the erythrocytes when present in the usual serum concentrations.³

Data on urinary excretion are available from several sources.^{2, 5, 10, 13, 15, 20, 21, 21} The drug is excreted in the urine in a concentration approximately 100 times that present in the serum.¹³

CLINICAL RESULTS

Pneumococcal infections (table 1). Collins and his associates^{11, 25} reported rapid subsidence of fever and clinical improvement in 4 patients

with pneumococcal pneumonia treated with aureomycin. Our results with 50 patients have been equally good. Forty-three of the patients had typed pneumococcal pneumonia, and 7 had bacteremia. The 7 patients from whom pneumococci were not obtained had the characteristic signs and symptoms of pneumococcal pneumonia. The ages of the 50 patients ranged from 15 to 86 years, 40 per cent being above the age of 40 years. Two patients with typed pneumonia died, one 20 hours after the first dose and the other 30 minutes after a single dose of aureomycin. One patient from whom pneumococci were not obtained died after 4 days of treatment. In most all of the surviving patients the temperature began to fall soon after aureomycin therapy was started, and in most instances it was normal within 24 to 48 hours.

We have treated 1 patient with type XII pneumococcal meningitis. He was a 62-year-old man who made a prompt recovery on oral doses of 700 mg. of aureomycin at 3-hour intervals for 4 days, followed by 700 mg. every 6 hours for 6 days. Although he had received 5 Gm. of sulfadiazine and 5 Gm. of sulfamerazine before aureomycin therapy was started, it is unlikely that the recovery in this seriously ill patient could have been due to the short period of treatment with the sulfonamides.

Beta-hemolytic streptococcal infections (table 1). We have treated 9 patients with scarlet fever. All of them have had a prompt fall in temperature and freedom from complications similar to the responses obtained with penicillin therapy. One additional patient with bacteremia caused by beta-hemolytic streptococci responded promptly to the antibiotic. Another patient with a beta-hemolytic streptococcal cellulitis also recovered within 24 hours.

Staphylococcal infections (table 1). Schoenbach and his associates²¹ observed excellent results in 5 newborn infants with multiple skin and breast abscesses, 1 of whom also had a positive blood culture. We have treated 3 patients with *Staphylococcus aureus* bacteremia. The blood

became sterile within 24 hours, and the temperature fell to normal within a few days in each instance. Two of the patients had been given penicillin previously without improvement.

Bacterial endocarditis (table 1). We have administered aureomycin to 2 patients with endocarditis. One patient from whose blood an alpha-hemolytic streptococcus was repeatedly cultured was given aureomycin for a week and penicillin for 4 days without any improvement. He died at this point with the clinical picture of a ruptured cusp. The second patient was a heroin addict whose blood contained alpha- and beta-hemolytic streptococci and *Staphylococcus aureus*. During the 30 days in which 2,000,000 units of penicillin was given intramuscularly every 2 hours the temperature remained elevated and the blood cultures continued positive. Penicillin was then discontinued and 1.5 Gm. of aureomycin given orally, followed by 750 mg. every 6 hours. Within 24 hours the temperature began to fall, and after 10 days it remained at practically normal levels. Aureomycin therapy was continued for 8 weeks. The patient made an uneventful recovery.

Gonococcal and meningococcal infections (table 1). Finland¹¹ reported the treatment of 66 patients with gonorrheal urethritis. The results were good but inferior to those obtained from the injection of 300,000 units of slowly absorbable penicillin. The 14 patients who received as many as four 500 mg. doses on the first day of treatment or 3 doses on the first day and 2 on the second day, all recovered, however.²⁵ One patient with meningococcemia was successfully treated by Finland.¹¹ So far as we are aware no patients with meningococcal meningitis have received aureomycin.

Typhoid and salmonella infections (table 2). Collins and his associates²⁶ reported good results in 1 case of typhoid fever, doubtful results in 3, and failure in 2 cases. Doses averaged about 50 mg. per kilogram a day. Three patients were treated by Schoenbach.²¹ Defervescence occurred in 24 hours, 8 days, and 11 days, respectively.

We have administered aureomycin to 8 patients with typhoid fever without any evidence that the aureomycin changed the course of the disease. One typhoid carrier was treated by Collins²⁶ and 1 by us, without success.

Collins²⁶ treated 2 patients with salmonella enteritis and 1 patient with a localized salmonella infection and bacteremia. In his opinion aureomycin may have had a beneficial effect in 1 of the patients with enteritis but had no effect in the other 2 cases. We have treated 2 patients with salmonella enteritis with 150 mg. per kilogram a day. Although both patients recovered, it was difficult to see that the antibiotic had contributed to the recovery.

Shigella dysentery (table 2). Four adult pa-

treated 10 patients with urinary infections. The results were good in 8 cases and unsatisfactory in 2.

We have given aureomycin to 14 patients with infections of the urinary tract and 1 patient with a tubo-ovarian abscess caused by *A. aerogenes*. All of these patients had intractable infections which had failed to respond to sulfonamides and other antibiotics. The patient with the tubo-ovarian abscess recovered promptly. Our results have been similar to those of the investigators mentioned above and may be summarized as follows: Intractable infections of the urinary tract were affected by aureomycin especially when the etiologic organisms were *E. coli* or *A. aerogenes*. *Proteus* and *Pseudomonas*

TABLE 2
Results of Aureomycin Treatment in Patients with Bacillary Infections

DISEASE	PATIENTS TREATED BY US			PATIENTS TREATED BY OTHERS			ALL PATIENTS		
	Good	Doubtful	Failed	Good	Doubtful	Failed	Good	Doubtful	Failed
Typhoid fever.....	—	—	8	1	3	4	1	3	12
Salmonella infections.....	—	—	2	1	—	2	1	—	4
Shigella dysentery.....	—	4	—	—	—	—	—	4	—
Genitourinary infections caused by gram-negative rods.....	2	—	13	14	15	4	16	15	17
Other <i>E. coli</i> infections.....	3	—	1	—	—	1	3	—	1
Brucellosis.....	2	—	—	24	—	3	26	—	3
Typhoid carrier.....	—	—	1	—	—	1	—	—	2

tients with dysentery due to *Shigella sonnei* were given 300 mg. of aureomycin every 3 hours for 3 to 7 days. The temperature became normal, the diarrhea stopped, and the stools became negative for Shigellae within 24 hours of the start of treatment in each instance. Although these results appear excellent, they are listed as equivocal because none of the patients was severely ill and because the outcome was consistent with the natural course of the disease.

Genitourinary infections (table 2). Finland and his associates^{11, 25} gave aureomycin to 16 patients with severe, long-standing urinary infections. Seven patients were given 2 courses. The authors rate the results in 6 courses of treatment as good, doubtful in 15, and poor in 2. Schoenbach²¹

were much harder to eradicate. Some strains of alpha or gamma streptococci and of staphylococci were quite responsive to the antibiotic. In many instances *Proteus* appeared while the patient was under treatment, even though it could not be cultured before therapy was started. When obstructive lesions or other pathologic conditions of the urinary tract were present, the infections were likely to return after therapy was discontinued.

Other E. coli infections (table 2). Collins²⁶ and our group have each treated 1 patient with colon bacillus bacteremia without improvement. One of our patients with *A. aerogenes* urinary tract infection also had a bacteremia which responded rapidly to aureomycin therapy. Two patients

with *E. coli* wound infections treated by us showed rapid clinical and bacteriologic recovery.

Brucellosis (table 2). Schoenbach et al²¹ have obtained bacteriologic and clinical improvement within 72 hours of the start of aureomycin therapy in 3 patients with acute brucellosis, all of whom had positive blood cultures before therapy. Spink and his associates¹² gave aureomycin to 23 patients with acute *Brucella melitensis* infection and to 1 patient with a severe chronic infection. All of the patients had positive blood cultures and all recovered promptly. One patient suffered a relapse which was cured by larger doses of aureomycin. Three additional patients later experienced clinical and or bacteriologic relapses.

Rocky Mountain spotted fever (table 3). Ross and his co-workers²⁷ reported the successful treatment of 13 patients with Rocky Mountain spotted fever. They found that the average duration of fever after the commencement of treatment was 2.3 days, compared with 6.3 days in 17 patients previously treated in the same hospital with para-aminobenzoic acid. The doses varied from 2 to 12 mg. per kilogram by mouth and were usually given at hourly intervals for the first 3 or 4 hours and at 2- to 4-hour intervals for a total of 4 to 9 days altogether.

We have treated 8 patients with this disease. One patient, a 52-year-old man with congenital ichthyosis, died. When aureomycin therapy was started he had been ill for 9 days, was comatose,

TABLE 3
Results of Aureomycin Treatment in Patients with Rickettsial, Viral and Presumably Viral Diseases

DISEASE	PATIENTS TREATED BY US			PATIENTS TREATED BY OTHERS			ALL PATIENTS		
	Good	Doubtful	Failed	Good	Doubtful	Failed	Good	Doubtful	Failed
Rocky Mountain spotted fever	7	—	1	19	—	—	26	—	1
Q fever	1	—	—	14	—	5	15	—	5
Typhus fever	—	—	—	1	—	—	1	—	—
Lymphopathia venereum	5	—	—	20	15	—	25	15	—
Measles	—	9	—	—	—	—	—	9	—
Granuloma inguinale	—	—	—	3	—	—	3	—	—
Primary atypical pneumonia	13	—	2	42	1	—	55	1	2
Infectious mononucleosis	2	1	—	—	—	—	2	1	—

These investigators noted a Herxheimer-like reaction beginning 8 to 12 hours after the first dose of aureomycin, consisting of a rise in temperature followed by a fall and the appearance of a shock-like state. These reactions tended to occur when 500 mg. were given every 6 hours. When the initial dose was 100 mg. every 6 hours, and this amount gradually increased up to 500 mg. by the fourth day of treatment, these reactions were less frequent.

We have given aureomycin to 2 patients with chronic brucellosis who had a typical history of the disease and agglutinin titers of 1:256 and 1:512 respectively. Both patients improved and have remained well for 2 and 3 months, respectively, after cessation of treatment.

and had a rectal temperature of 107.6°F. After aureomycin was administered in doses of 700 mg. every 6 hours the rectal temperature fell to 104°F. and there was some improvement for the next 48 hours. Then the temperature rose again and the patient died. It is felt that the generalized ichthyosis may have prevented the proper elimination of heat and thus may have contributed to his death.

Of the remaining 7 patients, 3 were children, 2 were in their thirties, 1 was 43, and 1 was 54 years of age. In all of these patients clinical improvement and a drop in temperature began within 24 to 48 hours after the commencement of aureomycin therapy. The average number of days of fever following the first dose of the drug

was 3.6. The doses employed were 5 mg. per kilogram every 3 hours or 10 mg. per kilogram every 6 hours until the temperature had been normal for at least 2 days.

Q fever (table 3). Lennette and his associates²⁸ treated 14 patients with acute Q fever. Four of them were treated with intramuscular injections of 20 mg. every 12 hours. The poor results obtained in these 4 patients can be explained on the small doses used. Ten patients were given oral doses of 3.2 to 4 Gm. during the first 24 hours followed by 1.6 to 2 Gm. a day. The temperature fell within the first 3 days of therapy in 8 patients and within 5 days in 2 patients. Two patients, who received aureomycin for only 4 days, suffered a relapse after the drug was stopped. An additional course of aureomycin produced prompt recovery. Five patients with chronic Q fever were treated with aureomycin orally. A good response was obtained in 4 of them.

We have treated 1 patient with acute Q fever with doses of 500 mg. every 6 hours. Her temperature was normal within 36 hours and her symptoms receded concomitantly.

Typhus fever (table 3). One patient with recrudescence epidemic typhus fever (Brill's disease) was treated by Schoenbach²⁹ with excellent success. Hourly doses of 200 mg. were given orally for 3 doses, followed by 200 mg. every 2 hours for 3 days and 100 mg. every 2 hours for an additional day. Improvement began within 12 hours of the first dose with diminution of the headache and rapid disappearance of fever and rash.

Lymphopathia venereum (table 3). Thirty-five patients with lymphopathia venereum were treated by Wright and his associates.^{22, 23} Aureomycin was administered intramuscularly in doses of 10 to 40 mg. a day for all patients except 2, who received oral doses of 500 mg. 4 times a day. Twelve patients with buboes showed a reduction in the size of the glands within 4 days from the start of treatment. In 4 of 5 patients with proctitis, the tenderness and discharge disappeared

within 4 days of the start of treatment. Rectal bleeding in the third case disappeared after 8 days of treatment. Benign lymphogranulomatous rectal stricture was present in 18 additional patients. Rectal bleeding, discharge, and pain disappeared during treatment, although the rectal stricture itself improved in only 3 instances.

We have treated 3 patients with buboes due to lymphogranuloma venereum, 1 with a rectal stricture and 1 with a stricture at a colostomy orifice, with results similar to those given above.

Measles (table 3). We have treated 9 patients with measles. Aureomycin therapy was started in 6 cases after the appearance of the rash and, although the temperature fell promptly and symptoms subsided within 24 hours after the start of therapy, no definite conclusions could be drawn as to the efficacy of the drug. Three patients were treated when Koplik's spots were present and before the rash appeared. In 2 patients the temperature was normal within 24 hours and, in the third, within 36 hours after the first dose of aureomycin. Symptoms disappeared with the fever. The rash appeared in each instance and went through its usual course, although it disappeared more rapidly than in the usual case. These patients were given from 5 to 10 mg. per kilogram every 6 hours for 3 to 4 days. Although these results are encouraging, the number of patients treated is too small for any definite conclusion to be drawn.

Granuloma inguinale. Wright and his associates²³ observed rapid improvement in 3 patients with granuloma inguinale, 2 of whom were given 20 mg. of aureomycin intramuscularly a day and the third 300 mg. orally every 4 hours.

Primary atypical pneumonia (table 3). Schoenbach and Bryer³¹ treated 13 patients with primary atypical pneumonia on the second to the twenty-first day of their illness. All were afebrile within 12 to 72 hours after the commencement of therapy. X-ray evidences of pneumonia were usually gone within a week after the first dose of aureomycin. Kneeland and his co-workers³¹ had similar results in 7 out of 10 cases. Two patients

had a very prompt drop in fever and improvement in symptoms followed by a recrudescence when the drug was stopped at the time the temperature reached normal. Both patients recovered gradually without further aureomycin therapy. The tenth patient recovered slowly, although the illness was complicated by thrombophlebitis in the right leg. It was impossible to assess the value of aureomycin in this case.

Finland and his colleagues³² studied 20 patients who had clinical evidence of primary atypical pneumonia and who developed significant titers of cold agglutinins. They were given 1 Gm. of aureomycin every 4 to 6 hours until the temperature had become essentially normal and 1 Gm. every 6 to 8 hours for an additional 2 or 3 days. All were improved clinically and were afebrile within 12 to 48 hours.

We have treated 15 patients with primary atypical pneumonia. The drop in temperature and amelioration of symptoms were striking in 13. Aureomycin was administered in doses of 500 mg. every 6 hours and continued for 3 or 4 days after the temperature was normal. There were no relapses. A 57-year-old male had been ill for at least 3 weeks on admission to the hospital. Roentgenograms of the lungs showed mottling in both bases. The cold agglutinin titer was found to be 1:256. By the time these tests had been completed and a tentative diagnosis of primary atypical pneumonia established, the patient had developed pretibial edema and signs of peripheral circulatory collapse. A single intravenous injection of 300 mg. was given. There was no apparent change in the patient's condition and 4 hours later he died. The remaining patient was a 48-year-old woman who did not improve when given 250 mg. of aureomycin every 6 hours for 3 days, beginning on the first day of the disease, consequently the drug was stopped. On the ninth day, because she was becoming more ill, the antibiotic was restarted, the dose being 500 mg. and later 750 mg. every 3 hours, but she continued to have high fever, pronounced dyspnea and cyanosis as well as gastrointestinal com-

plaints. On the eleventh day of this course of treatment, and 20 days after the onset the patient died with progressive dyspnea. Postmortem examination revealed an extensive pneumonia involving all lobes of the lungs. Microscopically this had the appearance of a primary atypical type. Serologic tests for Q fever, psittacosis and lymphogranuloma venereum were negative. Many reasons can be advanced for the failure of treatment in this case, but it is wise to withhold judgment as to its exact significance in relationship to the problem of therapy in atypical pneumonia until the antibiotic has been used more extensively, since the opinions concerning the efficacy of aureomycin in atypical pneumonia are in the preliminary stage.

Infectious mononucleosis (table 3). We have treated 3 patients with infectious mononucleosis, starting on the sixth, twelfth and sixteenth days of the disease, respectively. Doses of 250 mg. were given every 3 hours. In 2 of these patients the temperature fell in 24 and 48 hours, and the cervical lymph nodes decreased rapidly in size during the first 48 hours after the start of therapy. In one patient the liver returned to normal size and, in the other, jaundice disappeared within 48 hours. The third patient had no appreciable lymphadenopathy at the start of treatment (although the blood picture was typical and the heterophile agglutinin titer was 1:5120). Although his temperature gradually fell to normal during the 4 days following the start of aureomycin therapy, it was impossible to assess the value of the antibiotic in this case.

OTHER INFECTIONS

Braley and Saunders^{33, 34} have reported on the treatment of 200 patients with ocular infections. They used a 0.5 per cent solution of aureomycin borate which was found to produce no damage to the conjunctiva or cornea. Good results were obtained in the treatment of staphylococcal and pneumococcal conjunctivitis and those caused by *H. influenzae*, *E. coli* and the

diplobacillus of Morax-Axenfeld, among the bacterial infections, and dendritic keratitis, inclusion conjunctivitis and follicular conjunctivitis, among the diseases of virus or unknown etiology. The course of epidemic keratoconjunctivitis was shortened in cases in which the antibiotic was started before the fifth day of the disease and kept up for a week or more. Favorable results were obtained in 8 of 11 patients with uveitis. In the more deep-seated infections aureomycin was given intramuscularly as well as locally.

Two patients with primary syphilis have been treated by O'Leary and his associates.¹⁹ The dosage regimen was 500 to 750 mg. orally every 4 hours. Although healing of the ulcers took place and the titers of the serologic tests fell, the response was not as good as that usually observed when penicillin is used.

Finland¹¹ has treated successfully 2 patients with nonspecific urethritis. We obtained improvement in 1 patient with mastitis of unknown etiology and in 1 patient each with bronchiectasis and ulcerative colitis.

We observed no effect from the use of aureomycin in cases of miliary tuberculosis, the common cold, chickenpox, mumps, acute hepatitis, and acute rheumatic fever. Finland¹¹ reported that aureomycin treatment failed in 1 patient with questionable relapsing fever.

TOXIC REACTIONS

It is striking that so few toxic reactions to aureomycin have been observed. Investigators have uniformly reported the absence of hypersensitive phenomena such as dermatitis or fever. Collins²⁵ stated that drug fever may have been present in 1 patient treated for typhoid fever, but a dose of aureomycin given a week after treatment was discontinued failed to reproduce the fever. One of our patients complained of itching soon after he was started on aureomycin therapy. The antibiotic was continued for 8 weeks without any further symptoms developing.

Nausea and vomiting with oral administra-

tion have been observed by all investigators. Every patient does not have these symptoms. If they occur they usually appear after 2 or 3 days of therapy and even then 1 dose may be vomited up and the next may stay down. It is more likely to occur when larger doses are given. Alkalis, food, or tincture of belladonna often prevent these symptoms, although it has not yet been determined whether these substances will interfere with the absorption of the aureomycin. In our opinion a major factor in the production of these symptoms is irritation of the stomach probably due to the acidity of the antibiotic. We have not observed vomiting when large doses were given by intermittent or by continuous intravenous administration. Frequent bulky stools are a common side reaction of the oral administration of aureomycin. This symptom seldom reaches the stage of a watery diarrhea and can be diminished or stopped entirely by the administration of tincture of belladonna before each dose of aureomycin.

Finland¹¹ has reported a disagreeable sensation over the bladder which he thinks may be due to the high acidity of the urine. We have noted urgency of urination during the time the drug was being excreted.

One of our patients complained of slight light-headedness while an intravenous injection of aureomycin was being injected in isotonic salt solution at the rate of 100 mg. per hour. When the rate of administration was slowed this symptom disappeared. Four ambulatory patients experienced light-headedness while they were taking oral aureomycin.

RECOMMENDATIONS FOR TREATMENT

Aureomycin is an excellent therapeutic agent in infections caused by gram-positive cocci. The decision as to whether it is as effective as, or is superior to, penicillin must await trial in a larger number of patients. Since the physician can be sure that aureomycin will be absorbed when it is given orally, while the absorption of penicillin is more irregular, aureomycin may be

come the drug of choice for the treatment of patients who are ambulatory or confined to the home, if further studies show that it is as efficacious as penicillin.

In gonococcal urethritis the optimal method of treatment cannot be determined from the few patients treated up to the present writing. It is quite likely that aureomycin will be satisfactory for patients who wish to take medication by mouth. More studies will be necessary on patients with meningococcal infections before one can be sure of the effectiveness of aureomycin.

In view of the poor results obtained up to the present time with aureomycin in typhoid fever, and the excellent response which occurs after the employment of chloromycetin,³⁵ the latter appears to be the drug of choice at the present time. Further studies will be necessary to determine the effect of aureomycin in typhoid, salmonella, and shigella infections.

For the present it is desirable to treat urinary infections with drugs such as the sulfonamides and mandelic acid. When the causative organisms are resistant to these therapeutic agents, streptomycin or aureomycin may be tried, although the best policy is to determine the sensitivity of the microorganism to these antibiotics and use the one to which it is more sensitive. It is important to remember that any organic changes in the urinary tract which predispose to infection should be eliminated either before these antibiotics are used or soon after treatment is started. In patients where pathologic changes in the urinary tract cannot be eliminated for some reason, aureomycin is to be preferred over streptomycin, since it can be given orally and because bacteria do not readily develop resistance to aureomycin.

The present evidence favors the use of aureomycin in patients with brucellosis when the organisms can be cultured from the blood stream. In patients with a suspicious history and characteristic symptoms who have high agglutinin titers in spite of repeatedly negative blood cultures the

value of aureomycin therapy remains to be determined.

Most patients with Rocky Mountain spotted fever apparently respond to small doses of aureomycin. In Q fever it appears that similar doses are sufficient for young patients with the acute form of the disease, while older patients and those with the chronic form of the disease require larger doses. Further studies on typhus fever and scrub typhus (which should be amenable to the antibiotic on the basis of animal experiments) are necessary.

Evidence at present is sufficient to justify the use of aureomycin in patients with primary atypical pneumonia, infectious mononucleosis, and lymphogranuloma venereum. The results that have been obtained in measles and in granuloma inguinale are encouraging and warrant further trials of aureomycin for these diseases.

A satisfactory dosage-regimen for most infections seems to be 500 mg. every 6 hours until the temperature has been within practically normal limits for 3 or 4 days. There are a few exceptions. In cases of endocarditis or in severe bacteremias caused by gram-positive cocci, the sensitivity of the organism should be tested against both penicillin and aureomycin and the choice of drug as well as the dosage regulated accordingly. In gonococcal urethritis, if the drug is to be used, 4 doses of 500 mg. at 4-hour intervals seem to be sufficient on the basis of the patients treated thus far.²⁵ In brucellosis it is best to follow Spink's dosage regimen, starting at 100 mg. at 6-hour intervals and increasing the dose gradually until 500 mg. is administered on the fourth day of treatment.

DISCUSSION

A new antibiotic, in order to take its place alongside those which have become established in practice, must have one or more of the following attributes:

1. It should be easily administered.
2. It should be active in diseases for which

there is no satisfactory remedy, or it should be more effective than the drugs formerly available.

3. It should have a wider field of action than other antibiotics, and

4. Its toxicity should be low.

Aureomycin shows promise of meeting all of these criteria. 1. Oral administration will produce constant and therapeutically active concentrations of the antibiotic in the blood. 2. It shortens the course of several rickettsial diseases, of some cases, at least, of primary atypical pneumonia, and perhaps in cases of infectious mononucleosis, all diseases for which there has been previously no specific remedy. It is more effective in brucellosis than the combination of streptomycin and sulfadiazine which has previously been the regimen of choice in this disease; it is apparently more effective in lymphopathia venereum than the sulfonamides, and in some cases it has proved to give better results than penicillin in severe staphylococcal infections. 3. Its field of action is wider than that of penicillin, since it acts not only against infections caused by the cocci but also in brucellosis and the rickettsial diseases, several infections caused by viruses and of unknown etiology, and to some extent against infections caused by gram-negative bacilli. 4. No serious toxic reactions have been reported, although the nausea and vomiting which are sometimes present are annoying and occasionally interfere with the adjustment of therapeutic concentrations in the blood. They are apparently due to an impurity and not to the aureomycin itself, since all lots of aureomycin do not have the same emetic effect. Consequently it is extremely likely that the manufacturers will soon be able to eliminate the substance which causes these disagreeable reactions.

The clinician is also hampered by the fact that intramuscular and intravenous administration have not yet been worked out on a practical basis. It is to be hoped that suitable diluents will soon be devised in order that a satisfactory parenteral route of administration will be

available for patients who cannot take the antibiotic by mouth.

SUMMARY

1. Aureomycin, an antibiotic derived from *Streptomyces aureofaciens*, has been used by us in the treatment of 180 patients with a variety of infections.

2. The results of its use in 470 patients reported in the literature have been reviewed.

3. Suggestions have been made for the treatment of patients with different infections by the use of aureomycin.

CONCLUSIONS

1. Aureomycin is a therapeutically effective, relatively nontoxic antibiotic which is destined to take its place alongside penicillin and streptomycin.

2. Aureomycin is indicated in the treatment of brucellosis, Rocky Mountain spotted fever, Q fever, typhus fever, and lymphopathia venereum. It also appears to be effective in some cases of primary atypical pneumonia, infectious mononucleosis, and granuloma inguinale. It may be used instead of penicillin in staphylococcal, streptococcal and pneumococcal infections and instead of streptomycin in urinary infections. Further investigation will be needed to determine its ultimate value in gonococcal and meningococcal infections, typhoid, salmonella and shigella infections, and measles.

3. Most infections in which aureomycin is effective can be brought under control by oral doses of 10 mg. per kilogram every 6 hours or 500 mg. for the average adult.

BIBLIOGRAPHY

1. DUGGAR, B. M.: Ann. New York Acad. Sc., 1948, 51, 177.
2. HARNED, B. K., AND OTHERS: Ibid., 1948, 51, 182.
3. MEADS, M., HASLAM, N. M., AND STEVENS, K. M.: North Carolina M. J., 1948, 9, 568.
4. PAINE, T. F., COLLINS, H. S., AND FINLAND, M.: J. Bact., 1948, 56, 489.

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THE OPERATIVE TREATMENT OF URETERAL STRICTURES

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THE multiplicity of operative procedures devised for the treatment of ureteral strictures and obstructions of the ureteropelvic juncture is definite indication of the indifferent results obtained by these measures. Dr. David M. Davis published a paper, "Intubated Ureterotomy" in *The Journal of Urology*, February 1947. The operation was based on the principle that the incision at the site of the ureteral stricture would heal about a ureteral tube without approximation by sutures. It was different in principle from other operative measures which stressed the type of incision and manner of placing the sutures.

A series of 12 patients has been treated by this method during the last two years. These patients have been examined before and after operation by excretory urography, cystoscopy, ureteral bulb calibration, retrograde urography and pyeloscopy. The results have been better than those obtained by other procedures. It offers a solution to the management of strictures of considerable length. Pyeloscopy studies demonstrate normal peristalsis at the site of operation which may be interpreted as evidence of muscle regeneration.

REPORT OF CASES

Case 1. A white boy aged 7 was admitted on February 13, 1948. A urogram showed that a congenital valve obstructed the upper third of the left ureter. During the past 2 years the patient had had recurrent attacks of pyelonephritis. Intubated ureterotomy was performed, March 9, 1948. An incision 3 cm. in length was made 4 cm. below the ureteropelvic juncture. There was a transverse fold of mucous membrane occupying three fourths of the circumference of the ureter. This fold was excised and a no. 12 T-tube was inserted. The margins

of the incision were loosely applied about the tube with interrupted sutures. The tube was removed 2 weeks postoperatively. A urogram made 3 months postoperatively showed a normal pelvis and ureter.

Case 2. A woman aged 37 was admitted, October 3, 1947. The blood pressure on admission was 180/110. A urogram was made 5 months after operation for ovarian disease, at which time bilateral ligation of the ureters was done. No. 6 catheter was introduced to the left kidney pelvis. There was atresia at 5 cm. A T-tube ureterotomy, left lower third, was done on October 9, 1947. The tube was left in place 35 days. On October 29 a T-tube ureterotomy, right, was done. The tube was left in place 21 days. The left kidney recovered normal function. Since the right ureter had been occluded 170 days, that kidney did not recover. The kidney was removed on January 20, 1948. Recovery was uneventful. The blood pressure was 110/80 on discharge from the hospital. Urograms made 3 and 4 months after operation showed a normal left kidney and ureter. Pyeloscopy studies showed normal pelvic and ureteral peristalsis.

Case 3. A white woman 25 years old was admitted June 22, 1947. Right pelviolithotomy and nephropexy had been performed 2 years previous. Our first urogram showed hydronephrosis, right, and stricture of the proximal 5 cm. of the ureter. At operation on June 24, 1947 the kidney pelvis was opened and the ureteropelvic juncture and the upper 5 cm. of the ureter was incised. A nephrostomy drain with a 16F splint was left in place 24 days. Sutures were placed loosely about the tube. Recovery was uneventful. Two months after operation a urogram showed relief of the hydronephrosis and stricture.

Case 4. A 54-year-old man was admitted on June 25, 1947. A urogram showed severe hydronephrosis, left, with stricture and tortuosity of the upper 5 cm. of the ureter and a calculus in the ureter. Pelviolithotomy, left, had been done 5 years prior to admission. At operation on July 29, 1947 the pelvis, ureteropelvic juncture and

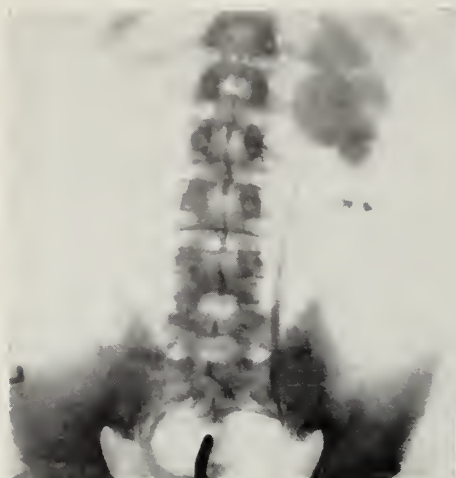


FIG. 1



FIG. 2

FIG. 1. Case 8. Preoperative urogram, showing severe hydronephrosis, right, and stricture of the upper third of the ureter.

FIG. 2. Case 8. Postoperative urogram, showing relief of hydronephrosis and stricture.

the tortuous fibrotic proximal ureter were incised, the calculus removed, and nephrostomy done, with a 16F ureteral splint left in place. The margins of the ureteral incision could not be proximated about the splint. Nephrostomy and splint were removed on the twenty-seventh postoperative day. A urogram 18 months postoperatively showed relief of the strictures and reduction of the hydronephrosis. Pyeloscopy showed sluggish pelvic and normal ureteral peristalsis. The renal pelvis emptied in 12 minutes. A no. 10 bulb passed without obstruction.

Case 5. A white man 19 years old was admitted on December 18, 1947. A urogram showed hydronephrosis due to stricture of the proximal 3 cm. of the ureter. At operation on January 8, 1948 a ureterotomy incision was made through the ureteropelvic junction and proximal 5 cm. of the ureter and a T-tube 10F inserted without suture. The tube was removed the twenty-eighth postoperative day. The wound healed promptly. A urogram made 12 months postoperatively showed the stricture relieved and the hydronephrosis reduced.

Case 6. A white man aged 39 was admitted on January 10, 1948, his urogram showing hydronephrosis, stricture of the upper 5 cm. of the ureter, and a calculus in the pelvis. The calculus became impacted in the upper ureter, making operation imperative. At operation on January 22, 1948, an incision in the pelvis and upper 5 cm. of the ureter was made. A nephrostomy drain with a catheter splint was left in place; no sutures were placed. The splint was removed in 14 days. A urogram 4 months

after operation showed normal kidney and ureter. Twelve months postoperatively a no. 12 bulb passed without obstruction. Pyeloscopy showed normal peristalsis.

Case 7. A white woman aged 41 was admitted on December 26, 1946. This patient had been under observation in the urology section for 5 years because of indigestion, flatulence, abdominal discomfort, right lumbar pain, and episodes of pyelonephritis. She had been treated by chemotherapy and ureteral dilatations. Urograms in the upright

position showed right hydronephrosis and nephroptosis. At operation on December 27, 1946 the pelvis, ureteropelvic junction and upper 4 cm. of the ureter were incised. A nephrostomy drain with 16 Fureteral splint was left in place. The margins of the ureteral incision were secured about the tube but not approximated by sutures. Nephrostomy and splint were removed on the fourteenth postoperative day. A urogram 24 months after operation showed relief of the pathology. A no. 14 bulb was passed to the kidney pelvis without obstruction.

Case 8. Figure 1 is the preoperative urogram of a white man 18 years of age, admitted on September 17, 1948 because of severe hydronephrosis, right, due to stricture of the upper one third of the right ureter. At operation on September 23, 1948, a ureterotomy was done with an incision 10 cm. in length in the area of stricture. A nephrostomy drain and a 14F catheter splint were placed in the ureter. The catheter splint was accidentally removed on the fourteenth postoperative day. There was some apprehension because of this early removal. A no. 14F bulb was passed 3 weeks postoperatively without obstruction. Pyeloscopy 6 weeks postoperatively showed normal peristalsis of the ureter. The kidney pelvis emptied in 11 minutes. Figure 2 is the postoperative urogram showing relief of the hydronephrosis and ureteral stricture.

Case 9. Figure 3 shows severe bilateral hydronephrosis and calculus in the left kidney of a white man aged 21, who was admitted September 3, 1948. At operation on

September 21, 1948, the left pelvis was resected and the ureteropelvic juncture and upper 5 cm. of the ureter incised. A nephrostomy drain and a 24F ureteral splint were left in place. These were removed on the eighteenth postoperative day. A similar procedure was done for the right kidney on November 18. The ureteral and nephrostomy catheters were removed on the twenty-first postoperative day. Figure 4 is the postoperative urogram showing relief of the lesion. Pyeloscopy on January 25, 1949 showed normal peristalsis and emptying of the pelvis in 10 minutes with the patient in the upright position.

Case 10. A preoperative urogram showed stricture of the upper part of the ureter in a white woman aged 25 who was admitted on August 31, 1948. This patient was 3 months' pregnant. At operation on September 16, 1948 intubated ureterotomy was performed. The ureteral stricture, 5 cm. in length, was incised and a 16F T-tube left in place. Sutures were applied loosely. The tube was removed 22 days postoperatively. Recovery was uneventful.

Case 11. Figure 5 is a preoperative urogram of a white woman aged 23, showing hydronephrosis, right, due to stricture of the proximal third of the ureter. At operation on December 4, 1948, the ureteral stricture, 5 cm. in length, was incised and a T-tube, 16F, was left in place



FIG. 3

FIG. 3. Case 9. Preoperative urogram, showing bilateral hydronephrosis and calculus, left.



FIG. 4

FIG. 4. Case 9. Postoperative urogram, showing relief of hydronephrosis.

without sutures. Figure 6 shows the T-tube in place. The tube was removed 4 weeks postoperatively. Figure 7 is an excretory urogram, 2 months postoperatively, showing relief of the hydronephrosis.

Case 12. The preoperative urogram of a white woman aged 29 showed hydronephrosis, right, due to high insertion of the ureter with atresia of the upper third. At operation on January 11, 1949 there was found moderate hydronephrosis and stricture of the upper 5 cm. of the ureter. An incision was made in the inferior border of the pelvis and carried into the upper 5 cm. of the ureter. A nephrostomy drain with a 16F ureteral splint was put in place. A 16F polythene tube was placed alongside the nephrostomy drain and catheter splint. Sutures were placed in the margin of the incision securing the margins of the ureter about the splints. The tubes were removed 4 weeks postoperatively. The excretory urogram 5 weeks postoperatively showed relief of the strictures and hydronephrosis.

(Continued on page 383)



FIG. 5



FIG. 6



FIG. 7

FIG. 5. Case 11. Preoperative urogram, showing hydronephrosis, right, due to stricture of upper third of ureter.

FIG. 6. Case 11. Postoperative urogram with T-tube in place.

FIG. 7. Case 11. Postoperative urogram at 3 months with relief of hydronephrosis.

CONSERVATISM IN PELVIC SURGERY*

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CONSERVATISM in pelvic surgery must be the aim in all gynecologic work. In considering the problem of conservatism, I should like to give you my perspective and why I have adopted it. In the broadest sense I have tried to conserve function when surgery is indicated, except when it is utilized in the management of malignant lesions. In pelvic surgery we are dealing with body functions which are of great importance but are not necessarily life-maintaining. These functions are procreation, maintenance of the female endocrine equilibrium, and finally, the function of copulation.

In this presentation I wish to emphasize the important points to be considered in the surgical management of patients with lesions of the female genital structures which are not malignant. Included in this category are conditions which are not essentially lethal but which, if allowed to remain untreated, would limit the functions of the organs involved and the activities of the patient, thereby promoting discomfort. I shall therefore consider the following conditions and procedures: (1) vaginal plastic operations, (2) disease and malformations of the cervix, (3) pelvic inflammatory disease, endometriosis, and ectopic pregnancies, (4) ovarian enlargements, true ovarian cysts and functional cystic changes in the ovary, (5) fibromyomata, (6) dysfunctional uterine bleeding, and (7) management of the uterine adnexa near the menopause.

VAGINAL PLASTIC OPERATIONS

The indications for vaginal plastic procedures are the necessity for the correction or reconstruc-

tion of abnormalities of the lower genital tract, such as stress incontinence, and separation and attenuation of the supporting structures of the lower female genital tract. When these procedures are indicated, the important consideration is the time in the individual's life when they should be accomplished, preferably when the process of child-bearing is completed; and they should be done in such a way that coitus would remain satisfactory and no endocrinologic imbalance would develop. The abnormalities of the lower genital tract may be congenital or acquired, but I do not think it necessary to state the specific lesions at this time.

It seems to me that there are very few instances in which vaginal plastic operations are indicated between pregnancies, and, if symptoms are present, they can be controlled until after child-bearing is completed. If vaginal plastic procedures must be done during the procreative period of the patient, in almost all instances sterilization is indicated. However, if future pregnancies are allowed, the delivery should be accomplished by cesarean section. There are, of course, instances in which vaginal plastic procedures must be accomplished to overcome infertility. The ordinary procedures for management of infertility are concerned with the cervix of the uterus; however, in a few instances other parts of the lower genital tract must be considered.

DISEASE AND MALFORMATIONS OF THE CERVIX

The cervix of the uterus is a very important structure, and the important consideration, as I see it, is an appreciation of what is a "normal" cervix. I should like to define my concept of a normal cervix and then proceed to state means of correcting any abnormalities which might be present.

* Read at the Sectional Meeting of the American College of Surgeons in Washington, D. C., March 16, 1949.

The normal cervix is a fibro-muscular part of the uterus which protrudes into the vagina. It should be covered completely by the vaginal membrane which is normally inserted just at the external os. The cervical canal is lined by a mucus-secreting mucous membrane which extends first from the external os to the internal os, at which point the endometrium begins. Normally there should be no extrusion of the endocervical tissue beyond the external os, and hence none of it should be exposed to the vaginal secretion. When this exact demarcation of the vaginal membrane and endocervical tissue is disturbed, either by congenital or acquired eversions or erosions, heteroplastic endocervical tissue changes will occur in the cervix, and it is my judgment that all of these conditions should be corrected.

Correction of these conditions of the cervix should consist of destroying the heteroplastic endocervical tissue or the endocervical tissue which is exposed to the vagina, as well as the diseased or abnormal endocervical tissue in the lower endocervical canal. This procedure can be accomplished by cauterization of the cervix with an actual cautery, coagulation with a bipolar endothermic appliance, endocervical resection by the Sturmdorf method, or by the Hyam's cutting loop. The method adopted should depend somewhat upon the facilities available and the surgeon's experience with the various methods. It is very important to understand and acquire skill in methods which will correct abnormal or diseased cervixes without destroying the function of the organ, and these methods should be applied in every possible instance. I should like to mention, parenthetically, that biopsies and Papanicolaou spreads, to detect and exclude carcinoma of the cervix, should be done routinely on these patients whenever a question of malignancy exists.

PELVIC INFLAMMATORY DISEASES

Under the heading of pelvic inflammatory disease I shall consider the management of such

pelvic infections as the surface-spreading processes of gonorrheal and the interstitial-spreading processes of septic or postabortal infections. These are certainly the most common types of infections observed. The problem of tuberculosis and other obscure infectious lesions need not be included in this discourse. Pelvic inflammatory disease is an acute and dynamic process which is the reaction of the internal female genital tract and its contiguous structures to some irritant. For this reason I have also included endometriosis and ruptured ectopic pregnancies in this category.

Acute inflammatory processes are managed by making an etiologic diagnosis when possible, by preventing intestinal obstruction, by maintaining the nutritional balance, and by the use of antibiotics to control the infection. The appropriate time to institute surgical therapy is when the process has become static, and it is when that condition exists that much can be done. I should like to impress upon you again the importance of maintaining the function of procreation and endocrine balance when at all possible. To destroy either of these functions is an admission of our inadequacy to deal with this particular problem. This statement implies that our goal in the management of these problems must be to maintain patency of the genital tract, and, if this ideal cannot be obtained, we must at least try to conserve ovarian function so that endocrine imbalance will not develop later.

These functions frequently can be maintained when the pelvic inflammatory disease has become static. At that time conditions can be corrected which are a result of the dynamic processes. Also, a resolution of the inflammatory process has either progressed to a considerable extent, or it has been completed to the point where only obstructions and adhesions of the genital and contiguous structures exist.

If the process has resolved only partially and has been caused by a surface-spreading infection such as gonorrhea, a procedure which has considerable merit is to interrupt the continuity of

the genital tract by a cornual resection. Falk¹ has found this a valuable procedure. I should like to report a case in point which was done before I knew of Falk's work, because it represents the value of the procedure and typifies the results which I have achieved many times since then.

M. G., Pennsylvania Hospital Case No. 24201, was admitted in June 1939. She had been my patient since August 1931, at which time she was 22 years of age, and complained of a vaginal discharge and urethritis. A clinical diagnosis of gonorrhea was proven by smears. She had been observed periodically from 1931 to 1939 by me, and had had repeated attacks of pelvic inflammation presumed to be of gonorrheal origin. In 1939 she developed a severe attack of acute pelvic inflammatory disease and remained ill for some time. A large cystic mass developed in the pelvis, which was thought to be the residuum of the pelvic inflammatory processes. When the acute process had subsided and we thought the condition had become static, she was operated upon. The following are the findings at operation: bilateral pelvic masses, with the left adnexa extensively involved and densely adherent to the sigmoid, the whole ovary having been destroyed by the inflammatory process. The right adnexa was adherent, but could be freed with very little distortion of the tube and very little injury to the ovary. The fimbriated end of the tube was opened. There were a few inflammatory nodules in the interstitial part of the tube. There was no obvious involvement of the external genitalia.

A dilatation and curettage was done for diagnosis, after which an endocervical resection, a left salpingo-oophorectomy, a cornual resection of the right tube and suspension of the right tube and ovary, and an anterior plication of both round ligaments were performed with an idea of completely peritonealizing all the raw surfaces. I took great pains to save the right tube and ovary, although they were fairly extensively involved with the pathologic process. My reason for resecting the right tube was to prevent contact between the lower genital tract and the tube, with the idea of preventing a possible recurrence of infection. No subsequent attacks of pelvic inflammation have occurred with this patient.

I have since seen this patient, and recently she was operated upon by another surgeon for some obscure intra-abdominal lesion. There were very few adhesions noted in the pelvis and her genital function was normal, except that the function of procreation had been destroyed.

Pelvic inflammatory processes which are caused by the septic organisms, such as those responsible for puerperal or postabortal infections, can best be managed conservatively by surgery after the acute process has been controlled with antibiotics, intestinal intubation, and maintenance of nutritional balance. If abscesses should remain static, drainage can be instituted. After the infectious processes have completely resolved, and if for some reason subsequent tubal nonpatency and the problem of adherent adnexa with cystic changes in the ovaries must be managed, it may be accomplished safely and with some degree of success so far as maintaining the normal genital function is concerned.

I have chosen to consider the problem of endometriosis with pelvic inflammatory disease of infectious origin because the condition, which must be managed surgically, is actually the result of repeated inflammatory reactions to the foreign body which we have recognized as ectopic endometrial implants. The inflammatory reaction to endometriosis is very extensive and involves the peritoneum and the subperitoneal structure, such as the interstitial part of the contiguous viscera. For these reasons the line of cleavage between structures has been entirely obliterated and often cannot be separated without extensive damage to the involved structures.

To me it has been very interesting to observe how frequently the most extensive changes occur in the lower part of the pelvis, and it is this observation which has given me my perspective in the management of these problems. It is my custom to free the involved structures by sharp dissection, resect ovarian involvement to the extent that it can be accomplished, and conserve ovarian tissue by meticulous plastic procedures on the ovary. Often the tubal mucosa has not been involved in the process and tubal patency can be maintained or restored. After careful and meticulous dissection of the uterine adnexa, the conserved ovary can be attached for suspension to a position near the posterior part of the fundus

of the uterus. I often use the ovary as a structure to facilitate covering deperitonealized areas on the body of the uterus. After complete peritonealization of all denuded areas has been accomplished, some type of uterine suspension, such as the Simpson operation, is done to maintain the uterus in complete ante flexion.

I have stated this management categorically, and, although it cannot always be accomplished, if a standard such as the one I have outlined can be established, it is amazing how often it can be fulfilled. It has been my experience in the management of many of these patients that symptoms usually will be relieved; that menstruation and ovulation will occur, and in many instances pregnancy is possible, as the following case will illustrate:

Mrs. L. G., Pennsylvania Hospital Case No. 37259, aged 36, had been pregnant once. She had been married for 19 years and had not used contraceptives. She had had a right salpingo-oophorectomy and uterine suspension and appendectomy by another surgeon 15 years previously; indication not stated, but probably followed an abortion. A cystic, adherent, tender mass was found in the left uterine adnexal area about 12 cm. in diameter. The clinical diagnosis was endometriosis with endometrial cyst of the remaining left ovary. The following were the findings at operation: There were a number of small myomata in the uterus, 1 interstitial and a few subserous. There were a great many adhesions from a previous suspension operation. Apparently the round ligaments had been separated from their mooring at the time of the previous operation. The right tube and ovary had previously been removed. The left ovary was enlarged and cystic and fixed at the base of the left broad ligament. The left tube appeared fairly normal. At operation the left ovary was completely freed and the myomata were removed; the round ligaments were fixed to the posterior surface of the rectus fascia with mattress sutures. All of the adhesions from the previous operation were separated with care and all raw surfaces were carefully covered with peritoneum. The procedure was done under spinal anesthesia, and the condition of the patient was very satisfactory throughout the operation.

Pregnancy occurred sometime after her last normal menstrual period on December 25, 1944, and on August 3, 1945, after a well-controlled labor, the patient was delivered by outlet forceps of a premature infant which weighed nearly 3 pounds. The baby lived and has done well. No subsequent pregnancies have occurred, but she remains well.

It is my impression that, if patients with endometriosis are managed surgically in such a way that the adnexa will not prolapse into the deep pelvis after operation, symptoms will be relieved and pregnancy frequently will occur. One is therefore perfectly justified in exercising conservatism and avoiding castration in most of these instances.

Ectopic pregnancies with tubal abortion and ruptures are frequently overlooked during the dynamic or active process when bleeding is profuse into the peritoneal cavity. When surgical management is undertaken for these conditions, it is well to control the bleeding and evacuate the collected blood from the peritoneal cavity, removing no more tissue than is necessary. In my experience it has frequently been possible to conserve the ovary intact, as well as a considerable part of the tube.

In the foregoing I have grouped together the commonly observed inflammatory lesions of the pelvis, and have emphasized the point that conservatism can be exercised in the surgical management of these conditions if the proper time is chosen for operation and if care is taken to free the adnexa and reconstruct them when possible.

OVARIAN ENLARGEMENTS, CYSTS, AND FUNCTIONAL CYSTIC CHANGES

In the management of ovarian enlargements the most important consideration is to differentiate clinically between true ovarian tumors and functional cystic changes in the ovary. This differentiation frequently can be made by careful observation of the patient over a period of time, perhaps within a few months. A consistent enlargement of an ovarian mass and firmness of its consistency usually indicate that a true neoplasm exists. Functional cystic changes in the ovary are likely to vary considerably at each observation of the patient, and occasionally rather large cystic masses will have disappeared between observations.

When surgical management of these ovarian lesions has proved necessary, the surgery should

be executed in such a way that ovarian tissue will remain. Rather large cystic masses can be resected from the ovary without destroying the whole structure if the tumors are removed in such a way that the hilum of the ovary is not destroyed with its blood supply and if the entire sac of the tumor is removed and hemostasis accomplished with great care. The ovarian tissue must be approximated lightly and carefully with fine atraumatic suture material and the ovary maintained in a position so that after the procedure it will not prolapse into the deep pelvis.

FIBROMYOMATA OF THE UTERUS

It is my teaching and conviction that fibromyomata of the uterus should not be treated unless they are causing pressure symptoms because of their size and location, or unless they are producing excessive bleeding. There are exceptional conditions when smaller fibromyomata need surgical management because of their suspected influence in the problem of infertility. In discussing the management of fibromyomata I am reminded of an incidence which occurred at an operation for fibromyomata complicating pregnancy. The tumors were quite large and interstitial and situated in unfavorable positions. I had concluded to do a hysterectomy, when the assistant who was helping me remarked, "Anyone can do a hysterectomy." This remark I interpreted as a challenge, and I then proceeded to remove 2 very large fibromyomata from the uterus without interrupting the pregnancy. The patient proceeded to term with the pregnancy and has since been delivered of twins at another pregnancy.

It is frequently possible and desirable to do myomectomies for the removal of rather large tumors. The apparent deformity of the uterus which results from these procedures will resolve completely in most instances. The important points in the technic of myomectomy are adequate hemostasis, careful approximation of the myometrium, and complete peritonealization of the uterine incision. It seems to me that myo-

mectomy should be considered frequently as the procedure of choice in the management of fibromyomata, and in my own experience the results have been very satisfactory.

DYSFUNCTIONAL UTERINE BLEEDING

Dysfunctional uterine bleeding and menstrual disorders are very difficult problems to manage primarily because of the lack of understanding of their cause. In many instances the causes cannot be determined from our clinical observations of the patient, and the treatment therefore remains pretty much empirical. Many of these patients must be managed by surgery. I would suggest that pelvic examinations, diagnostic curettage, and endometrial biopsy be utilized as simple procedures for the study of these problems. Frequently, after careful clinical observation of the patient, some episode in the course of the disturbance will develop which will justify a surgical procedure. The following case history is cited as an example:

Miss E. S., 24 years of age, had never menstruated but had had a few episodes of induced uterine bleeding. The external and internal genitals had seemed normal at a number of previous examinations made since the age of 22. The secondary sex development seemed normal at previous observations, but sudden changes began when she was 24 years of age. The breasts became smaller, the clitoris became enlarged, and hirsutism developed. At pelvic examination there seemed to be some enlargement and abnormal firmness of the left uterine adnexa. Because of the sudden changes in the secondary sexual characteristics and the recognized left adnexal enlargement, a complete study by surgical operation was undertaken which consisted of a diagnostic curettage and a laparotomy. The curettings showed an atrophic endometrium, and there was present in the left ovary a discrete fibroma 5 cm. in diameter, which was resected. The right ovary seemed to be entirely fibrotic and abnormal. Menses began 28 days after the operation and continued until marriage about 10 months later, at which time pregnancy occurred. Unfortunately the patient aborted this pregnancy and has not become pregnant since. However, she menstruates regularly. The patient is now unmarried.

It would seem that frequently when dysfunctional uterine bleeding occurs, some clinically

unrecognizable lesion may be responsible for the condition. When surgical management is decided upon, the procedure should be extremely conservative.

MANAGEMENT OF THE UTERINE ADNEXA NEAR THE MENOPAUSE

The management of the uterine adnexae near the menopause, or even following it, is obviously a controversial problem, and although I do not mean to be arbitrary in my attitude, I think it may be worth while to express my conviction. It is my opinion that when a hysterectomy is indicated it should always be complete. It seems to me that this procedure could be construed as being the more conservative, as I have previously reported in *The American Journal of Obstetrics and Gynecology* and in *The Surgical Clinics of North America*. However, after careful examination, when the uterine adnexae are found to be normal, it is my custom to conserve them. My reason for this conservatism is based on the premise that we do not understand sufficiently the action of the ovaries in later life, and that they may have a considerable value in preserving endocrine balance after the climacteric. The fear of malignancy may be cited as a refutation of this statement, but to me it does not seem tenable.

SUMMARY

In summary, I should like to stress that conservatism should be the aim and the ideal in all

pelvic surgery in women, except in the management of malignant lesions of the pelvis. This ideal should be stressed in order to maintain the procreative function, the endocrine balance, and the copulating capacity of the individual. Although the generative organs are not necessary for life maintenance, their vital capacities for life enjoyment are fundamental and must be considered in the surgical management of disease of these structures.

In this presentation I have discussed some of the pathologic lesions which are managed surgically and have outlined some methods which can be utilized to conserve these structures. I have tried to emphasize that careful observation of the patient will indicate whether or not there is need for surgical management of the condition. If surgical management proves necessary, it should be accomplished at a time when the reproductive function can be restored or maintained.

I have stressed the importance and feasibility of conserving ovarian tissue in situ, and have emphasized that diseased portions of ovaries can be resected and healthy ovarian tissue conserved without destroying its function.

I think it is very important to appreciate the fundamental capacity of the ovary to regenerate after surgery, if the operation has been executed in a meticulous and careful manner.

BIBLIOGRAPHY

FALK, H. C.: Interpretation of pathogenesis of pelvic infection as determined by cornual resection. *Am. J. Obst. & Gynec.*, 1946, **52**, 66.

PSYCHIATRIC ASPECTS OF ASTHMA*

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THE direct relationship between emotions and respiration has long been evidenced in the poetry, language, art, and culture of our society. The expression, "hold your breath," had meaning even to children, long before scientific investigation revealed that the height of attention is accompanied by the very least of respiration. When you read or hear, "I caught my breath," you have no doubt as to the anxious fear present in the speaker. Sighing is a disturbance of respiration frequently associated with disturbed emotions. Such commonplaces act as signposts pointing to the extraordinary overlooking, by medical men, of this close relationship between emotions and breathing. A physician who will readily admit that one may pant with excitement may deny with equal readiness an emotional factor in the etiology of bronchial asthma. This is an astounding phenomenon.

This ignoring of emotional factors in respiratory disease, and particularly in asthma, appears to be unique to our own practice of medicine. For more than 35 years the German literature has presented numerous articles concerning the relationship of psychic processes and respiration. Those interested in this voluminous literature are referred to the excellent compilation by Dunbar. In contrast, American literature, until the past 12 years, has been remarkably sterile in reporting investigation of the obvious connections between emotional reactions and respiratory disturbance. In this period the literature of American medicine has concerned itself largely with allergy and with drug remedies for asthma. The futility of any

one-sided approach to this disease is exposed by the large number of unimproved and unrelieved asthmatics now with us. Psychosomatic medicine requires the abandonment of this "either-or" attitude and the careful consideration of all factors in any illness.

This discussion concerns itself with the emotional factors of etiologic significance in asthma and with those secondary to the disease, of interest primarily in the conduct of drug or other therapy. The following case is presented to demonstrate emotional considerations of primary importance in etiology. Let it be emphasized that this case is presented, not as proof of anything in itself, but rather as the stereotype of psychogenic problems presented by asthmatics. The selection of the case has been based on the fact that the patient is typical and is young, hence more accessible to psychiatric investigation. Older patients reveal the same type of material, but the efforts and time consumed in obtaining such studies are of much larger proportion.

ILLUSTRATIVE CASE

The patient is a 17-year-old white man who entered the military service on August 15, 1947, and was admitted to a local hospital on February 6, 1949 by transfer from another military hospital where he had been hospitalized for 86 days under a diagnosis of asthma. He stated that his attacks of asthma began abruptly on August 12, 1948. Since that time he had had frequent attacks, usually at night. The individual attacks last 4 hours unless terminated by aminophyllin or adrenalin injections. At the previous hospital he was skin-tested but no specific allergens were found. He believes that wet and cold weather tends to bring on his attacks, but sometimes they arise without these elements being present, as during the nocturnal attacks. He has had 1 attack each

* Read at the Regional Meeting of the American College of Physicians in Washington, D. C., February 19, 1949.

night for the week prior to admission here. He has never had an attack starting during the daylight hours. The frequency of attacks has increased recently. Treatment in the previous hospital consisted of relieving the attacks with drug therapy, and of sinus drainage. The patient knows of no asthma or other allergy in the family history, but admits that he is not too well informed on this matter.

Physical examination reveals a well nourished white man in no apparent distress at the time and not appearing ill. The chest is not emphysematous, and the lungs are clear to percussion. The breath sounds are described as normal. There are diffuse inspiratory and expiratory wheezes, and occasional crepitant inspiratory râles. Vocal resonance is normal. The physical examination is otherwise essentially negative except for some inflamed and edematous mucous membrane in the nose.

Admission and subsequent laboratory examinations, including an X-ray film of the chest, were within normal limits.

Special examination by Dr. Curry elicited a history of infrequent respiratory infections but a positive history of whooping cough. In this examination the laboratory data were as follows:

Vital Capacity	Exhalation Time
(1) 3810 MI	4.8 seconds
(2) 3750 "	5.2 "
(3) 2980 " {coughing wheezing}	
(4) 3210 "	
Reaction to Histamine Base I.V.	
0.005 mg. Vital Capacity 3210 to 2550 MI	
0.01 mg. " " 3200 " 2400 "	{wheezing coughing}

Reaction to Nebulized Isuprel	
Vital Capacity	3900 MI
Reaction to 0.3 mg. Epinephrine 1 M	
Vital Capacity	4100 MI

The history, physical examination and laboratory data though incomplete are quite consistent with so-called intrinsic asthma. He has definite emphysema, and I feel his prognosis is guarded.

The patient was seen in psychiatric interview on February 15 and 16, 1949. He was neat, extremely polite, and precise in his actions and behavior. At times his mannerisms were somewhat effeminate. When asked what his difficulties are, he said that he has asthma, and elaborated this by stating that asthma "is an allergy of the bronchial tubes," but that his allergy tests are negative. In describing his asthma, he stated that he felt tight inside his chest, and that it was hard to get air

in and out. "It feels as if the tube gets so tight that I can't get the air in and out, as if there was something in there stuck and stops my breathing. As the result of this I breathe faster and faster, and harder and harder. Then I start getting pains around my heart and all through my chest." He very readily goes into a description of all the medicines he is taking and all the 'shots' he is getting. He feels that he has asthma worse than anybody else on his ward.

The mother is described as nice and gentle, agreeable, and not hard to get along with. The father is 44 years of age, is troubled with varicose veins, and works as a night smoker in a meat plant. Mother and father separated in September 1948 after many years of difficulty, according to the patient. The father is described as an unreasonable, disagreeable person who has no sense of responsibility. Mother and father are stated to have been married for about 18 years, and the mother has always told the patient that the father wasted money foolishly once many years ago, and as a result everybody has had a 'tough' time since. The patient adds, however, that he has nothing against either of his parents even though his father frequently beat his mother and called her dirty names. When asked to describe in detail one of these "beatings," the patient was unable to do so, and when pressed appeared to become quite confused. There is a brother 1 year younger than the patient who, according to the patient, has a nervous condition due to the beatings given him by the father. There is a sister 3 years of age.

The patient states that he has always planned to go into military service. He has gotten along well with older people, and particularly those who were exact and "military" in their attitudes. He enlisted in the military to get away from home. His military service has been satisfactory.

Two weeks before the first asthmatic attack the patient had a few days leave, and went home to find out about the separation of his parents which his mother had written him about. There his mother told him several things which were new to him: (1) The father had a previous marriage; (2) "he was forced to marry me because of you." This pregnancy, which terminated in marriage and the birth of our patient, was said by the mother to have had its origin in a hotel room, and was obviously an unwelcome accident; (3) dates on the marriage certificate had to be switched because of the accidental pregnancy; (4) the mother said that the father was going to say in court that she was a tramp, a prostitute, and was going out with other men.

In response to this somewhat startling information, the patient states that he "didn't feel a single thing." According to him, this did not affect him at all, and he

returned to duty on August 5. At his duty station, which was in a moderate-sized city, he accosted and picked up a girl on the streets on August 8. He took this girl to a hotel room, and there had heterosexual relations with her, this being the first such event of his life. Two nights later he went to sleep, awakening the next morning with his first asthmatic attack. He was placed almost immediately under medical care and has been under such care ever since.

The hospital records indicate that the asthmatic attacks became more severe and frequent immediately after Thanksgiving, 1948. In being questioned about this period of his life, the patient reveals that over the Thanksgiving holiday he took another girl whom he had met to a hotel room, and indulged in intercourse with her. When he took her to her home later it is noteworthy that he states, "I felt a little scared, thought there might be a shotgun around."

Throughout the interview the patient frequently stated that there is nothing emotionally wrong with him, that he knew a lot about psychiatric patients. He went into long details about emotional disturbances, and how the nerves of such patients get the better of them. He described how emotionally disturbed patients shake and cry, and remarked, "I never do that." At one point he remarked, "Something can be done for them. I have seen them get over their illnesses, but they tell me nothing can be done for asthma."

The patient was given figure drawings, the Szondi, the Wechsler-Bellevue, and the Rorschach. The tests are not reported in detail here. Of importance in the figure test was considerable confusion regarding his own sexuality, and the nature of character to be found in men as contrasted to women. In the Szondi test there was evidence of excessively strong dependency needs as well as acceptance of oral needs, also brought out in the figure test. The Wechsler Bellevue indicated marked anxiety, and preoccupation with problems sufficiently pressing to render concentration impossible. Despite this, his intelligence was above average. On the Rorschach there was marked color shock, marked feelings of trauma in the sexual-sensual area, singular absence of answers indicating emotional response to other individuals in the environment, and a minimum of free fantasy life. His range of interests is exceedingly narrow, his thinking is stereotyped, he is blocked and repressed, and very unproductive throughout the Rorschach test. On the other hand, his contact with reality is very good. When not threatened he thinks along popular lines, and in conformity with others. There is the capacity for lively imaginative activity.

Summary of the psychologic tests: a deep-seated psychoneurosis in a rather immature, highly dependent boy, the focus of the disturbance being rooted in the sexual

area. There is marked shyness in interpersonal relations. He is functioning in a limited and constricted way but maintaining good contact, and is superficially friendly.

Attention is directed to several important aspects of this case:

1. This individual has a personality structure in which immaturity and great dependency are outstanding. Coincidentally imposed are personality features making for susceptibility to neurosis: confusion over personal sexual identification, ambivalent and confused attitude toward female figures, and great disturbance over sexuality.

2. The history indicates that the first attack of asthma followed closely a precipitating episode in life adjustment in the nature of an emotional trauma.

3. The physical findings indicate what is interpreted as a somatic diathesis found only in people susceptible to asthma, plus present physical findings consistent with a diagnosis of asthma.

4. The clinical psychiatric examination and the psychologic tests reveal the presence at this time of a deep-seated, severe psychoneurosis related to disturbances in sexuality, and revealing itself psychiatrically in limited and restricted functioning of the personality.

This case, then, is a stereotype of asthma as it presents itself to the psychiatrist. The features important to the case are: (1) a psychic diathesis characterized by excessive dependence and immaturity, (2) a somatic diathesis specific to asthma and diagnosable by tests proposed by Curry, (3) a precipitating emotional incident in the life of the patient. This combination of essential features requires that this case of asthma, as the majority of cases of the disorder, be classified as a psychoneurosis manifesting itself at the somatic level.

Present-day psychiatry believes that it can explain, on dynamic principles, the development of the psychic diathesis. The presence of the somatic diathesis has only recently been shown; its origin remains obscure. Further studies should reveal whether the somatic diathesis is inherited, congenital, or acquired, and if acquired, whether

it arises on an emotional basis, on an infectious basis, on an allergic basis, or on some other as yet unsuspected basis.

It appears likely that the presence of all three of the above essential elements are necessary for the development of asthma. The combination of psychic diathesis and precipitating incident, or of psychic diathesis and somatic diathesis, would not produce asthma. Whether the precipitating incident and the somatic diathesis in combination will produce asthma is at this point an unsettled question, and requires further investigation. The absence of an answer to this problem is in part due to the rarity of occurrence of the somatic asthmatic diathesis without the concurrent psychic asthmatic diathesis. This in itself suggests that the somatic and psychic diathesis may be of common origin, but at the moment this remains a matter of speculation, awaiting further studies for proof or disproof.

To this point, emotional disturbance has been considered only from the viewpoint of etiology. Those treating asthmatics cannot afford to overlook the emotional disturbance secondary to the attack itself.

No single physical phenomenon creates more anxiety than disturbance of respiration. This is well known to those who care for patients subject to interference with the respiratory process for any reason. The ushering-in symptom of acute congestive failure is a terrific sense of fear, as labored and hampered respiration develops. Mere mechanical interference with the respiratory process can produce panic.

The reasons for this anxiety are deep-seated and probably have to do with the fact that breathing is the first and last act of extrauterine life in man. The presence of respiration is essential to prove life in the newborn. The absence of respiration is one of the cardinal signs of death.

Regardless of its deeper significance, the fear and anxiety secondary to the fear may well be compared to the reaction to combat fear seen in military personnel. Once the fear is induced in either situation, the end-result is the product of

the personality's acquired methods of handling anxiety. Some will be much more disturbed by the secondary fear arising from asthma than others. These greater disturbances are inevitably linked with emotional problems within the personality. Clarification of the emotional problems by psychotherapy lessens the pathologic response to fear.

Our primary concern is in the application of these basic principles to the treatment of a given case of asthma.

The involvement of emotional factors in the etiology does not in any way contraindicate methods of treatment aimed at other than the emotional factors. The asthma may be attacked at any level from the somatic through the physiologic with drugs and surgery, or at the basic etiologic level by psychotherapy.

The precipitating emotional event can ordinarily be reached with relatively superficial psychotherapy. In this connection it seems wise to mention that much of the difficulty encountered in attempts at psychotherapy by other than trained therapists lies in the belief that psychotherapy is an easily applied, simple, relatively short, process. Nothing could be further from the truth. Psychotherapy is involved and tedious. It requires long hours of hard work; skill in it can be attained only by adequate training and considerable experience. Failures resulting from less competent application of psychotherapeutic procedures are in part responsible for disbelief in its effectiveness.

The psychic diathesis can be attacked with long-term intensive psychotherapy of the type ordinarily referred to as psychoanalysis. This procedure, of course, requires very special training on the part of the psychotherapist. Whether the somatic diathesis can be altered is a moot question. It appears that allergic desensitization may have at times altered the somatic diathesis in some fashion. Whether the effect of desensitization is somatic or psychic, however, is as yet unproved. Further studies in this area are clearly indicated.

(Continued on page 382)

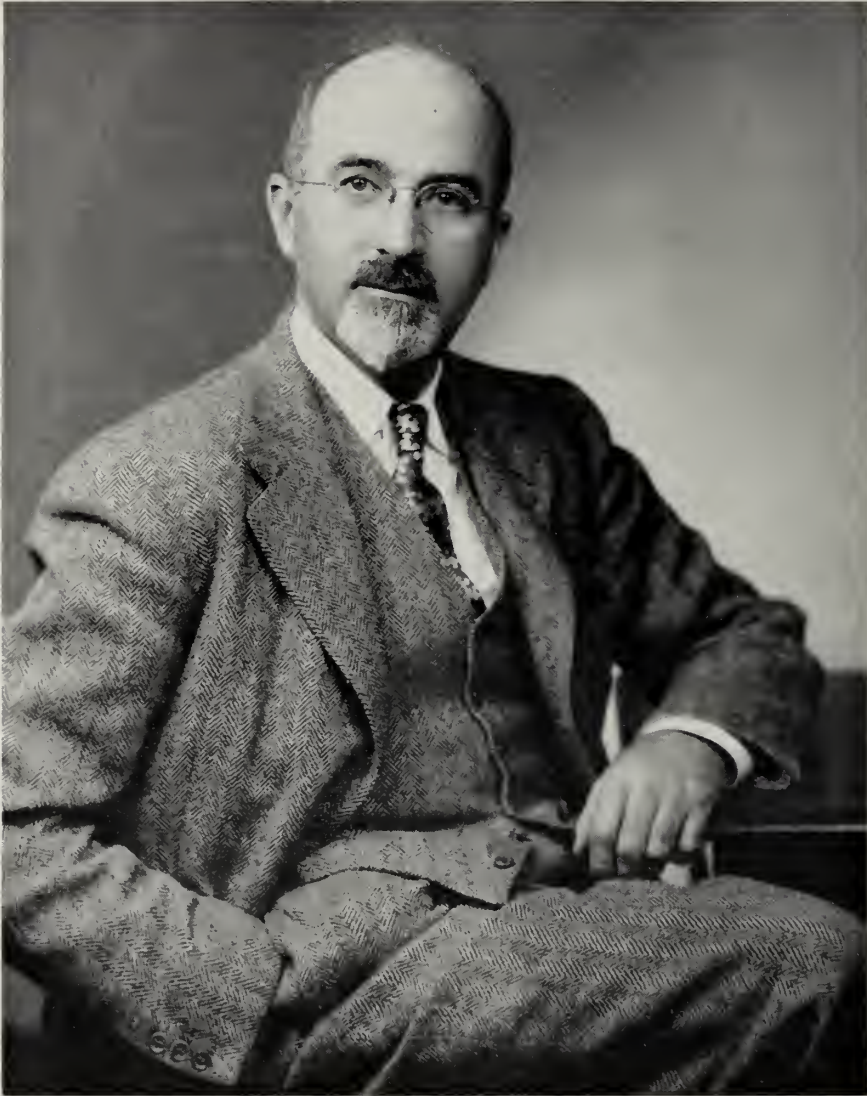
President's Page

THE DRIVE IS INBORN

Sinclair Lewis paid a tribute to doctors when he said that the only real difference between a doctor and an ordinary man was that the doctor could work all day, get no sleep, and work all the next day. There is a limit to human endurance, but from the time a young man enters medical school he finds himself driven with more than ordinary pressure to learn, to practice, to produce. While ordinary men are content at the end of the day to relax with the comics or television, the doctor reads his journals, attends his meetings, or answers calls of those who need his services. There is great variation from doctor to doctor, as well as from man to man in the way he employs his "leisure" time. It is not only the pressure from outside sources, however, that determines the direction of his energies. There is something so vital, so fascinating about the practice of medicine, that the doctor finds an urge to explore new paths, to adapt new technics, to find better ways of doing things.

Accomplishment represents 25 per cent inspiration, 25 per cent perspiration and 50 per cent vitality, and the doctor who has the requisite vitality can not only direct his energies toward further accomplishment, but also imbues his patients with a certain enthusiasm and will to get well. The drive toward accomplishment is partly inborn, partly cultivated over the years of training and experience. Some men keep it up for years if not decades after entering upon their career in the practice of medicine; others are more easily satisfied with their professional accomplishments and devote themselves to relaxation or to efforts in related or distant fields. The young physician, attending meetings of the Medical Society, takes it for granted when he sees so much gray hair and baldness in the audience. As he continues to attend meetings, in spite of the increase of his responsibilities and the calls made upon him, he becomes accustomed to seeing the same distinguished faces, and as he himself accumulates gray hairs (or loses them) he may find himself wondering just a little what makes these men tick. Habit is one thing, and gregariousness is another, but stronger than either of these is the inherent quality of these energetic men to employ their leisure time for their own improvement and for the extension of their knowledge. These men are under no compulsion to attend meetings nor to take part in the debates, nor to lend their wisdom and enthusiasm to the business of the Society through its committees and boards. They do it for the rewards that come from the sense of achievement and for the recognition of their obligation. No forty-hour week for them!

Walter Freeman



WALTER FREEMAN, M.D., F.A.C.P.

President, The Medical Society of the District of Columbia, 1949-1950

Editorials

WALTER FREEMAN, M.D., F.A.C.P.

Dr. Walter Freeman, 83d President of the Medical Society of the District of Columbia, is one of Washington's most distinguished physicians. Internationally known for his contributions in neurology, he is in great demand as a lecturer. Few physicians are therefore more widely traveled than Dr. Freeman. His speaking engagements have taken him to all parts of this country and to Europe.

Dr. Freeman was born in Philadelphia, Pa., November 14, 1895. His early education was received at Episcopal Academy, Philadelphia. Later he attended Yale College from which he graduated with an A.B. degree in 1916. His degree in medicine was obtained at the University of Pennsylvania in 1920.

Dr. Freeman was Anatomist at the Philadelphia General Hospital in 1920-21 and Assistant Pathologist in 1923. During the years 1923 and 1924 he studied neurology in Paris and Rome. He received an M.S. degree from Georgetown University in 1929 and a Ph.D. from the same institution in 1931. He is a Diplomate of the National Board of Medical Examiners and of the American Board of Psychiatry and Neurology.

Director of Laboratories at St. Elizabeths Hospital from 1924 to 1933, Dr. Freeman began private practice in Washington in 1926. He was appointed Consulting Neurologist at St. Elizabeths in 1934. Subsequently he became Attending Neurologist at Gallinger Municipal and George Washington University Hospitals; and Senior Consultant in Neurology to Walter Reed and Mt. Alto Hospitals. He has been Professor of Neurology at George Washington University School of Medicine since 1927, Lecturer in

Neuropathology at the United States Naval Medical School since 1924. He was Associate in Pathology at Georgetown University School of Medicine from 1924 to 1931.

Dr. Freeman holds membership in many scientific organizations. He became an Associate member of the Medical Society of the District of Columbia in 1927, being elected to Active membership in 1930. He is also a member of the American Medical Association, American Neurological Association, American Psychiatric Association, American College of Physicians, Philadelphia Neurological Society (President 1945-46), Washington Society of Nervous and Mental Diseases, Washington Academy of Sciences, Washington Society of Pathologists, and the Washington Academy of Medicine. He served on the Commission on Mental Health, District of Columbia, from 1938 to 1946. He was formerly a corresponding member of the Estonian Neurological Society, and holds similar memberships in the Academy of Sciences of Lisbon, the Academy of Medicine of Barcelona and the Cuban Society of Neurology and Psychiatry.

Dr. Freeman has held various offices in these organizations. He was Secretary of the American Board of Psychiatry and Neurology from 1935 to 1945 and President 1946-47; President of the Washington Society of Pathologists in 1929; President of the Washington Society of Nervous and Mental Diseases in 1931; Secretary-Treasurer of the Section on Neurology and Psychiatry of the Medical Society of the District of Columbia from 1932 to 1934; Chairman of the Section in 1935; and a member of the Subcommittee on Mental Health of the Medical

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia

Society in 1947-48. He was also Chairman of the Section on Nervous and Mental Diseases of the American Medical Association in 1930-31. The Association awarded him a bronze medal for his scientific exhibit in 1931.

Dr. Freeman is the author of a book on neuropathology, published in 1933, and, with Dr James W. Watts, of another on psychosurgery (1942) soon to appear in a second edition. He has made numerous other contributions to scientific literature, most of which have appeared in national medical journals. He was the Davidson Lecturer in 1939 and again in 1943.

Dr. Freeman was married in 1924 to Marjorie Franklin of New York City. The Freemans have five children: Lorne, Assistant to Information Chief of the American Psychiatric Association; Walter J. III, now a student at the University of Chicago; Franklin, who is attending Trinity College, Dublin; Paul, a medical student at Leland Stanford University; and Robert Fitz

Randolph, now at home with his parents. A sixth child, William Williams Keen died in 1946.

Very few physicians are held in higher esteem by their colleagues than Dr. Freeman. Socially, he is a shy, kindly man. His consuming interest is medicine and he finds little time for other matters. Nevertheless his friends know him as an entertaining conversationalist on a variety of subjects. His literary gifts are well known, especially to readers of poetry.

If Dr. Freeman has a hobby outside his profession, it is touring the country in a trailer with his family. He is a great lover of children and the out-of-doors. Whenever the opportunity offers, he explores the countryside with them, often hiking long distances. Once a golf enthusiast he no longer has the desire or the time for this sport.

The Medical Society is unusually fortunate in such critical days as these to have at its disposal the services of one of the country's outstanding physicians.

AUREOMYCIN FOR HUMAN BRUCELLOSIS

The reservoir for brucellosis exists mainly in three types of domestic animals: cattle, hogs, and goats. Eradication of the disease from this reservoir, far from being obtained, at the moment seems to offer insuperable obstacles. As a matter of fact, there is reason to believe that the incidence of the disease is increasing, not only in animals, but in humans as well. Some of this increase undoubtedly is real and some of it is the result of diligent case-seeking among persons who are especially exposed to the disease as a result of occupation. Brucellosis is an occupational hazard principally in farmers, livestock workers, veterinarians, slaughter-house employees, and laboratory workers.

An outstanding feature of human brucellosis is the development of hypersensitivity to the organisms, and it is probable that the symptomatology of the disease is partly related to the degree of

hypersensitivity.¹ One approach to treatment, therefore, entails desensitization by injection of gradually increasing doses of *Brucella* antigens. Although this method undoubtedly has an important palliative effect, it is obviously not ideal.

Until recently efforts to rid the tissues of the bacteria have been generally futile. Sulfadiazine exerts some suppressive influence, and streptomycin is somewhat better. The use of streptomycin and sulfadiazine together is considerably more effective. This combination produces results which must be attributed to a synergistic rather than a simple additive effect of the two compounds.

Soon after aureomycin became available, Spink and his co-workers² tried it for human brucellosis. They expected, from studies made previously in

¹ Spink, W. W.: *Ann. Int. Med.*, 1948, 29, 238.

² Spink, W. W., and others: *J.A.M.A.*, 1948, 138, 1145.

vivo, that this new antibiotic would be less effective than the combination of sulfadiazine and streptomycin. However, the drug has other obvious advantages, particularly that it can be given by mouth and has little toxic effect. The results from aureomycin therapy were surprisingly good and surpassed those obtained from the combination of sulfadiazine and streptomycin. There were no serious toxic effects from aureomycin. Nausea, vomiting, and mild diarrhea were observed but were transitory and not severe enough to warrant discontinuation of therapy. It was learned that when large doses were given from the start an increase in fever and symptoms of mild shock might develop within the first 24 hours. It is recommended therefore that the initial total daily dose should not exceed 0.1 Gm. and that this should be increased gradually to a total daily dose of 4 to 6 Gm. by the fourth day. A period of treatment covers 2 weeks in all.

³ Herrell, W. E., and Barber, T. E.: *Proc. Staff Meet., Mayo Clin.*, 1949, **24**, 138.

⁴ Heilman, F. R.: *Ibid.*, 1949, **24**, 133.

Herrell and Barber³ have employed aureomycin and dihydrostreptomycin for acute brucellosis. The selection of this combination of drugs was the result of an ingenious study by Heilman⁴ of the influence of various substances on the pathogenicity of *Brucella* organisms for mice. The preliminary report of the effect in humans is encouraging. The recommended plan of treatment consists of the administration of 3 Gm. of aureomycin daily by mouth combined with the simultaneous administration of 2 Gm. of dihydrostreptomycin daily by the intramuscular route. For the usual case of acute brucellosis a course of treatment lasts 12 to 14 days. This should be lengthened when the disease is complicated.

Precise evaluation of aureomycin in the treatment of brucellosis obviously will require more extensive studies. However, the preliminary reports suggest that this drug alone or in combination with dihydrostreptomycin is the most potent therapy yet devised.

H. H. H.

INDUSTRY PROVIDES MEDICAL CARE

Washington is crowded with writers, analysts and commentators who relay and interpret happenings in the Capital for the Nation's citizenry. Those of us who have lived in other parts of the country know how eager people are for news from Washington. Although a great deal has been said about feeling the country's pulse and maintaining constant contact with the "grass roots", it seems that those of us in the Capital, aside from news gatherers, have been surfeited with national news. Nearly all of us are guilty of being so absorbed with the "big issues", except for occasional perusal of the home town chronicle, that we fail to realize the importance of the activities and particular problems of New England, the Southwest or elsewhere. It is not solely a matter of being unable to see the forest for the trees. Sometimes

it is merely a question of turning around for a panoramic view of our country as a whole.

Leaders of the Medical Society again showed their foresight and their desire to maintain proper perspective when they invited Dr. Clifford H. Keene, Medical Director of Kaiser-Frazer Corporation, to speak at the Annual Business Meeting on May 4, 1949. In addition to his splendid presentation of industry's efforts in the field of prepayment medical care, he offered a comprehensive and well thought out study of the major classifications of existing medical care programs.

It is important to us in Washington which is so lacking in industry to have a first hand report from one of the greatest industries—automobile—of its endeavors to solve the problem of medical care. If all industries followed the lead

of Kaiser-Frazer, General Motors, Ford, Packard and others, about 75 per cent of whose employees are enrolled in voluntary prepayment medical care plans, there would appear to be little need or demand for compulsory health insurance. Every industry is interested in medical care as part of the total social security program, and as Dr. Keene said, "fringe" arrangements are becoming increasingly important in labor and management negotiations.

The medical profession should take heart that they are not fighting against a compulsory program alone, as industry is anxious to help solve the problem in its own interest, and likewise many labor groups seek a solution within the present economic structure. The fact which unfortunately has not been too well publicized, that the Ford Motor Company enrolled 250,000 of its employees under a voluntary system this Spring, is of tremendous importance. The name Ford in itself is magic to many people, especially those in other parts of the world. Further, it should be of great significance that the Tennessee Valley Authority is offering Blue Cross and Blue Shield coverage to its 14,000 employees in five Southern states. This is in spite of the fact that TVA is a Government-owned corporation and classified as a Federal agency. It is encouraging that this project, which was the fruit of one of the first efforts of the new social philosophy, has adopted a voluntary method. It should reassure the medical profession that they are not completely outflanked. There is little room, at this point however, for relaxation or self acclaim, as TVA's employees are precluded from medical care plans in two of the five states, Tennessee and Kentucky, due to absence of Blue Shield coverage.

The great advantages of prepayment medical care plans in industry have been expertly summarized by Dr. Keene. In addition his paper is of significance because it shows that although the problem of medical care in industry may be considered a matter between management and

labor, the medical profession can guide these groups in establishing a sound program. There seems to be no reason for medicine to become involved in the arbitration. It can do a more effective job by actively counseling both parties. To use Dr. Keene's words, "In these things I considered myself not only a representative of management but more importantly as a voice of the medical profession. I appealed to the leaders of our medical societies for guidance and sought the advice of the individual physicians in our community."

To indicate further the importance of voluntary prepayment medical care, and to bring Dr. Keene's statistics up to date, the Enrollment Reports of the Blue Shield Plans, as recently issued, show that in 1948 there was a gain of 3,128,628 Blue Shield members. In the first quarter of this year nearly a million new subscribers were added, making a total of 11,333,758, and over half of the plans include medical services. It seems doubtful if the Government could "tool up" any quicker.

Industry, many labor groups and even Federal agencies are strong allies of the medical profession. Their support should be encouraged and their cooperation utilized to the utmost. The American Medical Association's House of Delegates apparently recognized this fact when it voted to sponsor a national conference for all groups interested in medical care.

It is important for the citizens of the District of Columbia, including the medical profession, to keep well informed on the medical situation throughout the country. The problem of medical care, albeit, may be focused here in Washington, but it is refreshing and stimulating to learn of the planning of the medical needs of the people in other sections of the country. More talks from medical leaders outside of our city of Dr. Keene's caliber would seem to be in order.

J. R. C.

THE FAMILY DOCTOR

EDITOR'S NOTE: Published below are the three essays which received highest awards in the recent essay contest sponsored by the Medical Society's Section on General Practice (See report in June ANNALS, page 325). The judges made their selection from a total of 94 entries. The authors of these three essays read their papers before a general meeting of the Section in the Society's auditorium, May 27. Prizes were also awarded the same evening to six contributors whose papers were adjudged worthy of Honorable Mention.

NANCY R. FISHER

15 years, Grade 11, Sidwell Friends School

Winner of First Award of \$100

"Dr. Raybern? Who's he?"

"Just a G.P. Lives down the block."

* * * *

That's right. I'm just a general practitioner. Four years in pre-med school, four years in medical school, two years doing interne work, and now? Now I'm a general practitioner—the Family Doctor.

Morning calls: visits to old friends, trips to make new ones. I counsel—I console . . .

A broken hip is a serious thing with a person as old as your mother, Mrs. Dalton; she may not walk for a long time. Why not get in touch with a Public Health Nurse who could take some of the burden off your shoulders? . . .

Well, little girl, it looks to me like you've got the chickenpox. Sure, you can eat ice cream; you can have all the ice cream you can hold! . . . That's a fine way to start the day, Joey, one broken arm and no front teeth. Next time don't play football in the street.—We should speak to the Park Commission about that new playground.

. . . I know it seems tiresome, Mr. Jamison, but you've simply got to rest after you've had pneumonia. . . . That's a bad burn, Mrs. Carlisle.

You're quite right; nowadays they just don't make electric cords the way they used to . . .

I think I'll stop for a cup of coffee. Wonderful stuff, coffee. . . . Let's see, where am I now? A long way from my home, my security, and my comfort. Or am I? Maybe my real home is the old Dodge; maybe my security is my medical bag; and my comfort? . . . "Thanks, doctor. I don't know what we'd have done without you."

There are times when I get just plain fed up with my job—times when I'd like to say to hell with the whole business. It's not easy—this being a doctor, this curing and caring. That's what it means to be a general practitioner—you cure and help with your hands, and you care and pray with your heart, for

a lifetime of tense moments and patient hours. Oh, I'm not trying to set myself up on a pedestal as The Good Samaritan; it's not easy, but it's worth it! The thanks, the gratitude, and most of all, the well people and the kids who have a second chance to live. They are more than ample reward. They are what make me glad I decided to become a doctor—glad that I can serve them as their physician and friend.

In the afternoon I sit and wait for them to file in. Cuts, aches, scratches, bruises, ugly infections, and hidden pains that elude diagnosis. The hurt, the worried, the unhappy; they all come. . . .

How's that hand, Joe? . . . There's nothing wrong with your baby, she's just cutting a tooth. . . .

Bandage an ankle, sew up a cut, prescribe treatments and patent medicines. Sometimes they come with troubles that don't show—troubles of the heart and mind that are worse than any wound of the flesh. . . .

What's wrong, Lucy? Family problems again?

Now, Lucy, you and I have known each other a long time—you know you can't possibly live with a person day in and day out without disagreeing sometimes. Cheer up! Marriage can be a bed of roses, but it takes time. . . .

They all bring their troubles to the family doctor. They bring their sorrows when they're blue, but they also bring their gladness when they're happy. Maybe Jimmy Talbot found a green snake, or Sue got a wristwatch for her birthday, or the Lanes finally found the perfect house. . . .

Emergency call! There's work to be done and I've got to work fast. There's no time to be personal now. Time! I watch the race between the clock and the pulse until I think I'll crack with the strain! But when it's all over I don't crack; I just unbend and try to relax with a cup of coffee before I go on. . . . Guess I'll take a look at the new medical journal after supper. . . . Tears, cries, troubles, and suffering. . . . Oh, Lord, do all stairs go up? . . .

But my life is far from being all work. Often there are days when work is light, and I have plenty of

time to devote to my own pleasures. Also, in my profession, not being a specialist, I have the freedom to roam through the entire field of medicine. I can make my own investigations, my own discoveries, and win my own merit in any corner of that field that interests me. Neither am I so tied down to my job that I can't keep up with the world around me

DIANE RUTH CARROLL

16 years, Grade 11, Georgetown Visitation Convent

Winner of Second Award of \$75

It is said that the field of specialized medicine is growing to such an extent that each organ of the human body will be under the scrutiny of many

eyes and the beloved family doctor will become old-fashioned, out-moded, and gradually fade out of the modern-day scheme of life. No doubt the learned men who write of these things possess a great deal more knowledge than I shall ever have, but to me there would never be another who could quite fill the place of our family doctor. Since the day I was first brought into this world and became a red and squalling piece of humanity, he was always at my side whenever I needed him (and sometimes when I didn't).



Courtesy Washington Post

MRS. MEYER CONGRATULATES ESSAY CONTEST WINNERS

Mrs. Eugene Meyer congratulates the winners of the three highest awards in the essay contest on the subject, "The Family Doctor," sponsored by the Medical Society's Section on General Practice. Left to right: Nancy R. Fisher, first award, \$100; Mrs. Meyer; Diane Ruth Carroll, second, \$75; and Nancy Helena Dahl, third, \$50. Mrs. Meyer was the guest speaker at the general meeting of the Section, May 27.

or pursue my personal interests. Sports, literature, the arts, family, job—my time is fairly distributed. After all, a general practitioner is only a man.

I marvel at the wonders my hands can perform. I'm shocked to find how little I really know—how much I still have to learn. I know the feeling of pride in a job well done. I know the ache of the times I was too late. . . . And I go on.

* * * *

"Dr. Raybern? Who's he?"

"He's our family doctor who lives down the block. Nice guy. Works hard."

There were broken bones to be mended, wounds to be bandaged, and even the smallest cut would deserve its just deserts. There was no ailment, no matter how unimportant it seemed, that was too small to gain his sympathy and the care of his gentle and experienced hands.

Perhaps my devotion for our family doctor lies in an incident of some years ago. I had been in bed for several months with an ear infection during which time, of course, our doctor had made almost daily visits and worked upon me to the best of his medical ability, but it seemed to be of no avail and it was decided that an ear specialist should be called in.

Instead, three specialists were called in to examine me, and when they had finished I'm sure the pain in my ears would have been preferable to the fear that I felt toward those strange men. It was finally decided that an operation was inevitable "to remove those little bugs," as my doctor always said. During the operations on my ears and all through the time of my convalescence, he was always at my side, giving me sympathy, understanding, and kindness as well as the pills and multicolored medicines that were carried about in the small black satchels of doctors (and the former, I'm sure, were far more beneficial to my recovery). When I began on the road to convalescence, the doctor who had operated on me was bound to suffer. He had never quite understood me and thought me quite incorrigible though I was only six at the time. Needless to say, I thought none the more of him and so drew horrible-looking pictures of him and, much to his chagrin, plastered them all over the hospital wall. Whenever he would come into the room and ask for a smile, the reaction would be the opposite, and my tongue would pop out as far as it could stretch, the latter giving him the information he desired, that of seeing if the muscles in my face were still working. (They definitely were.) I might add, however, that as soon as I grew out of the so-called incorrigible stage, we became fast friends.

The incidents and trials through which our doctor brought me are far too numerous to mention in detail, but with the time he gave to the care of me with colds, sore throats, the diseases of childhood, and any other incidental that came along, I often wonder how he had any time to give to his other patients who were just as loyal and trusting of him as I was. His day was never brought to an end; he was subject to call at any hour of the day or night, and, indeed, he seldom spent a peaceful evening at home, for no newborn babe or ruptured appendix has yet gone by the clock. His fees were not always promptly paid, but to ease the suffering of so many people and to see the light of gratitude and respect shine from their faces must have been worth tenfold the money that was paid to him.

During the War the burden fell even more heavily upon the shoulders of the doctors. The younger ones were taken into the services, this being one of the factors which has induced the growth of specialized fields in medicine, as a high premium was placed on

specialists by both services, and many schools were converted to the training of them. Those who remained at home were overworked and had to assume heavy responsibilities, and as a result many of them became casualties on the home front. Our own doctor was one of these. He was truly a hero, fighting as much as any soldier, and thinking not of himself but of the many who needed his counsel and guidance through those trying times. Now that we are back on a peacetime basis, the need for the general practitioner has become even greater. In the United States today there has been a great increase in the growth of the middle classes, most of whom are able to afford medical care from a general practitioner but would be unable to afford the services of a specialist, and the inevitable result would be socialized medicine. There are, of course, times when it is necessary for a specialist to give further counsel and aid to the doctor, but the understanding sympathy, and warm feeling which exists between the family doctor and the people to whom he has dedicated his life can never be replaced by the wonders of medical science.

Though I'm speaking from my own point of view and of my own experiences, there are millions of other people who feel as I do. To them the family doctor will always stand as a symbol at the head of the community and of the Nation.

NANCY HELENA DAHL

16 years, Grade 10-B, Western High School

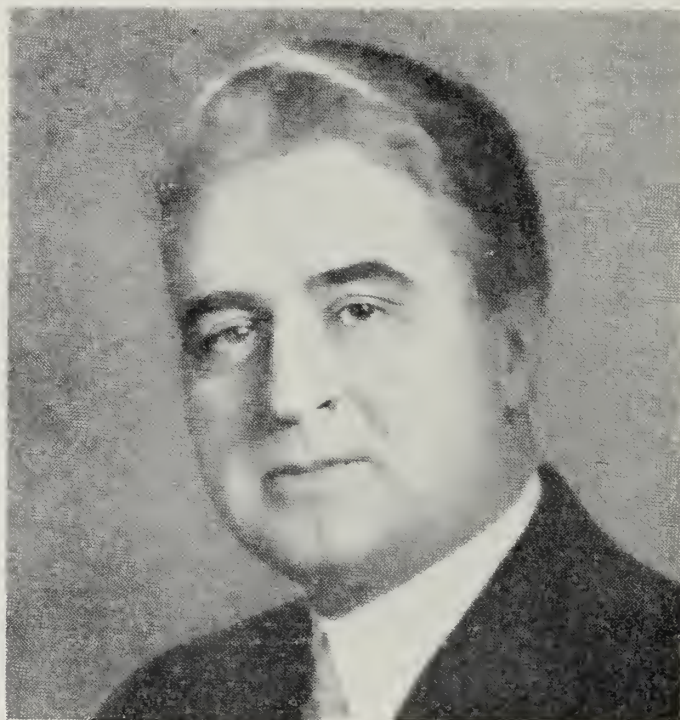
Winner of Third Award of \$50

He was a tall, slim, middle-aged man with graying brown hair, brown eyes, and an engaging smile. My sister and I loved him. We were always overjoyed to go to his office, for he always had stories to tell us. We thought he must have had marvelous eyesight, for he was the only one who could see elephants in our ears, hippopotami in our noses, and perhaps an elk or two down our throats. He would peer into our noses, ears, and mouths, while we waited breathlessly, wondering what strange and wonderful thing he would see.

Whether we saw him at his office, or he came to our home, we always got some of the sticks that he used to look into our mouths to keep for our very own. When we were sick, he always came to the house, bringing his little black bag, which carried almost everything. He would take our temperature and

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Washington Physicians of Yesterday



XLIX. NOBLE PRICE BARNES, M.D.

Genial, debonair, intellectual and accomplished, Dr. Noble Price Barnes made a mark for popularity and appreciation among his contemporary fellow physicians of the District of Columbia.

The son of a physician, Dr. Barnes was born, August 16, 1871, in Killbuck, Ohio. He studied medicine in Baltimore Medical College, graduating with honors as M.D. in 1893. After that time he practiced general medicine in Washington until his death in 1933. For twenty-four years he was Chief of Service on the staff of Casualty Hospital, and he was Surgeon for Battery A, District of Columbia Light Artillery.

From the beginning he displayed a special interest in materia medica and therapeutics, and in his subsequent career his activities centered conspicuously around that field. In the Medical Department of the National University he was appointed Professor of Therapeutics in 1898, and of Materia Medica and Therapeutics in 1902, serving as such in that school until its merger with George Washington University in 1905. In the latter institution he served as Lecturer and Associate Professor on Materia Medica and Toxicology from 1905 to 1912. He was eulogized as an able medical educator, a "born" teacher.

As for society memberships he was an enthusiastic "joiner," being an active member and official of a large number of organizations. As if existing associations were not sufficient he showed a marked penchant for organizing and guiding new societies. He became a member of the District of Columbia Medical Association in 1895, and its penultimate President 1910-11; member of the District Medical Society in 1895, and rendered committee service in these two bodies. He was one of a half dozen organizers of the Washington Medical and Surgical Society in 1897, and served six terms as its President, 1897-1901 and 1920. He was a member and President of the Washington Therapeutic Society. The American Therapeutic Society was his particular pet; he was one of its organizers in 1900, its Secretary 1900-12, President 1912-13, continuously a member of its Council, and Chairman thereof 1913-33; he never missed

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PREPAYMENT MEDICAL CARE IN INDUSTRY*

CLIFFORD H. KEENE, M.D.

Medical Director, Kaiser-Frazer Corporation, Willow Run, Michigan

Asking me to talk to you tonight on the subject of "Voluntary Prepayment Medical Care in Industry" is similar to asking a first-year intern to discuss cancer of the pancreas. My information on the subject has been obtained mainly from reading and study, while my experience is still in the formulative stage.

About one month ago, Mr. Ketchum, the Executive Vice President of Michigan Medical Service, called me by phone and said that he had a request from your officers to suggest an expert to speak on this subject and, to my consternation, he blandly asked me if I would care to do so. Mr. Ketchum knows that for the past several years I have been running about asking questions of everyone on this matter in an effort to help solve this problem for the corporation with which I am connected. Also, I read someplace that an expert is just an ordinary guy from some other place, and under this definition I can qualify.

Shortly after the establishment of the Kaiser-Frazer Automobile Corporation at Willow Run, Michigan, in early 1946, it became apparent that some plan of medical care would be established eventually. This was indicated by the repeatedly expressed aims of the union and also because of Mr. Kaiser's receptiveness to the suggestion. Mr. Kaiser has always been interested in the problem of medical care. As Medical Director of the Corporation, I was advised to inform myself on the subject.

"Medical Care Plans" as used today practically means some form of prepayment medical service. The fact that some type of prepayment for medical care is desirable seems to be well accepted by all groups concerned, but as the *Bulletin of the St. Louis Medical Society* (October 1, 1948) pointed out, "The issue now is not whether we should or should not have prepayment medicine, or budgeted medicine, or collective medicine, or whatever else one wishes to call it, but what kind of prepayment medicine shall we have and who is to control it?" From the outset it was our intention at Kaiser-Frazer to be ready with a plan which would render reasonably

adequate coverage for the participants and which would be acceptable to our community and to the physicians practicing in the area. We wanted to please all and offend none. To accomplish these aims, it was necessary to look into the history of prepayment medical care and examine the types of plans already in effect. I should like to review some of this fundamental information with you and then tell you of what we did.

First, to get a comprehensive view of the field, let us look at the various groups promoting such plans.

MEDICAL CARE PLANS CLASSIFIED ACCORDING TO SPONSORSHIP

- I. Industrial Plans
Organized within an industrial establishment.
- II. Medical Society Plans
Sponsored by state or county medical societies. Physicians continue in individual practice but agree to participate.
- III. Private Group Clinics
Services provided by a number of physicians who practice as a group, using joint facilities.
- IV. Consumer-sponsored Plans
Organized and directed by the subscribers. Employ salaried physicians.
- V. Governmental Plans
Established by a governmental unit for its employees. Usually compulsory.

As of January 1, 1947, the United States Public Health Service estimated that approximately 39,700,000 people—more than one out of every four persons in the population—were enrolled in organizations providing hospital service on a prepaid basis or had insurance protection against the cost of this service. Of these, 16,100,000 were also covered for physicians' services in surgery and obstetrics. Of the latter number, about 5,000,000 were also covered for physicians' services for medical cases in the hospital. About 3,700,000 persons were covered in some manner for office and home services, most, though not all, of whom were covered for the other services.¹

The last few years have shown an increased tendency for persons to enroll in more than one type of prepayment program. This practice has become so common that it is impossible to make an accurate estimate of the total enrollment in voluntary health

* Presented at the Annual Business Meeting of the Society, May 4, 1949.

insurance. In 1948 and 1949, estimates by other agencies have raised these figures.

COVERAGE OF POPULATION OF UNITED STATES
BY PREPAYMENT MEDICAL CARE PLANS
—ESTIMATED JANUARY 1947*

For hospital service	39,700,000
For physicians' services in surgery and obstetrics	16,100,000
For physicians' services in medical cases in hospitals	5,000,000
For office and home services	3,700,000

* Figures of U. S. Public Health Service.

COVERAGE OF POPULATION OF UNITED STATES
BY PREPAYMENT MEDICAL CARE PLANS
—ESTIMATED 1948

For hospital service	46,700,000
For physicians' services in obstetrics and surgery in hospital	15,200,000
For physicians' services in medicine, surgery, and obstetrics in hospitals	3,800,000
For complete physicians' services in home, office and hospital	3,400,000

From these sets of figures, we probably can assume that 45,000,000 of our people are covered for hospital services and 20,000,000 for some amount of physicians' services. We also see that such prepayment medical care is growing rapidly.

The public was concerned, first, with paying its hospital bills and second, with paying the doctor. This has resulted in prepayment plans for hospital and medical bills evolving separately, but of late they have tended toward merging in single plans. May I discuss the various plans in a bit more detail.

BLUE CROSS HOSPITAL SERVICE PLANS

- A. Prepayment hospital insurance
- B. Guarantees hospital services
- C. Nonprofit
- D. Free choice of hospital
- E. 24,250,000 persons enrolled in the 81 plans in the United States
- F. Plans operate through contracts with member hospitals which, in return for specified payments, agree to provide specified services.

MEDICAL SERVICE PLANS (BLUE SHIELD)

- A. Prepayment insurance for doctors' services
- B. Sponsored by medical societies
- C. Nonprofit
- D. Free choice of physician
- E. 3,832,000 persons enrolled in 35 plans
- F. Plans operate through agreements with medical societies,

the members of which, in return for specified payments, agree to provide specified services.

COMMERCIAL INSURANCE FOR HOSPITAL,
MEDICAL AND SURGICAL EXPENSES

- A. Provides indemnification against, or reimbursement for, expenses incurred for medical care
- B. As of January 1, 1947:
 - 12,500,000 covered for hospital care
 - 9,300,000 covered for surgery and obstetrics
 - 850,000 covered for physicians' services
- C. Sold in group (75%) and individual (25%) basis
- D. Extent of coverage varies greatly

INDUSTRIAL MEDICAL SERVICE PLANS

- A. Over 100 industries provide medical care for employees and occasionally for employee's dependents
- B. Salaried physicians
- C. Some maintain hospitals
- D. Maintained by pay deductions with or without employer contribution
- E. 1,435,000 people covered in 1945

FARMERS' HOME ADMINISTRATION PLANS

- A. For low-income farm families
- B. Operate through local agreement with hospitals and doctors
- C. Finances may be borrowed from the administration
- D. 134,000 persons covered for hospitalization
165,000 persons covered for physicians' services

PRIVATE GROUP CLINICS

- A. Group practice by physicians providing services on a prepayment basis
- B. Examples:
 1. Ross-Loos Medical Group in Los Angeles
 2. Permanente Hospitals on West Coast
- C. 400,000 persons enrolled
- D. Questionable legal status in some states

CONSUMER-SPONSORED PLANS

- A. Consumers' groups contract with physicians to furnish services
- B. Cover mainly office and home visits
- C. About 300,000 persons enrolled

UNIVERSITY HEALTH SERVICES

- A. Employ physicians and maintain facilities to care for students
- B. Students pay an annual fee
- C. Perhaps 100,000 students covered

HOSPITAL PLANS

- A. Individual hospitals set up prepayment plans—local basis

- B. Mainly in the West—Oregon
- C. 25,000 people covered for hospitalization
100,000 people covered for physicians' services

Prepayment hospital plans were already of considerable size and general use by the time the first large prepayment plans for physicians' services were started in 1939. The Michigan State Medical Society has been a leader in this field in that it was one of the first to promote such a plan on a state-wide basis. At present our hospital plan and medical service plans are the largest of such groups in the country.

MICHIGAN BLUE CROSS AND BLUE SHIELD

- A. Enrollment as of February 1949:
 - Michigan Hospital Service—1,567,172
 - Michigan Medical Service — 1,345,376
- B. One out of every four persons in Michigan is Blue Cross-protected.

The large size of both of these plans reflects the industrial aspect of our state economy. In industrial communities, it is relatively easy to enroll workers when the employer lends some assistance in the way of promotion. Also payroll deductions are the most convenient method of payment as far as everyone is concerned.

In Michigan, practically all of the large industries offer opportunity for enrollment in a prepayment hospital and medical service plan. These are wholly voluntary, of course. The following automobile manufacturers offer opportunity for enrollment in Michigan Hospital Service and Michigan Medical Service without employer contribution and the percentage of workers enrolling is as follows:

1. Packard—65 to 70 per cent
2. Chrysler—70 to 75 per cent
3. General Motors—75 to 80 per cent
4. Ford—75 to 80 per cent

These percentages are approximations, of course. In those industries in which the employer contributes to the cost of hospitalization and medical insurance, a higher percentage of employees enroll. The following large companies, taken as examples, contribute to the cost of these plans for their employees and the accompanying percentages of employees enroll:

1. Hudson Motor Car—75 per cent plus
2. Briggs Manufacturing—80 per cent plus
3. Detroit Edison—86 to 99 per cent.

In these postwar years, the major point of negotia-

tion between unions and management has been wage rates; however, a number of matters under the heading of Social Security have been receiving more and more attention. Pension plans, sickness and accident insurance, life insurance, and hospital and medical insurance have been so-called "fringe issues" to be discussed with management but with the real emphasis being placed on wages. Now that the cost of living has leveled off, it can be expected that the emphasis will shift from wage increases to the fringe issues concerning social security. This has already occurred in our industry.

In June of 1948 an agreement was reached between the Kaiser-Frazer Management and the UAW-CIO, Local 142, that five cents per hour would be contributed to a so-called Social Security Fund for each hour that a Kaiser-Frazer employee worked. To administer this fund, a board of eight trustees was established, four from the union and four from management. I was appointed a trustee by management. These eight trustees were to provide the best possible "social security" for the worker with the funds available. Outside experts were called in and the Social Security Department of the UAW-CIO rendered invaluable aid. A canvas was made of union members as to what type of benefits they desired. These are listed below in order of their preference by the average worker.

SECURITIES DESIRED BY THE WORKER IN ADDITION TO WAGES—UAW-CIO

- A. Income maintenance during disability
- B. Hospital and medical costs
- C. Retirement benefits
- D. Death benefits

From the onset it was agreed that we could not be concerned with retirement benefits because of the amount of money involved.

I need not describe to you the tremendous amount of groundwork which was done to institute a suitable program. During the formulative period, all of us realized that what we were doing was being watched with great interest by the rest of the industry. The UAW-CIO considered the matter as a pilot project and probable pattern for future negotiations. In these things I considered myself not only a representative of management but more importantly as a voice of the medical profession. I appealed to

the leaders of our medical societies for guidance and sought the advice of the individual physicians in our community.

The following plan, entailing prepayment medical care, was established and has been in operation for eight months.

KAISER-FRAZER—UAW-CIO SOCIAL SECURITY PROGRAM

I. Disability Insurance

- A. Commercial Company
- B. Provides \$30.00 per week for a maximum of 26 weeks
- C. Covers all nonindustrial disabilities
- D. Pregnancy coverage—\$30.00 per week for 6 weeks
- E. Pay begins first day of injury or hospitalization or eighth day of illness at home.

II. Blue Cross Hospitalization

- A. Employee and his family covered
- B. Semi-private room
- C. 120 days' hospitalization per illness
- D. Practically all hospital expenses covered

III. Michigan Medical Service

- A. Covers surgical and obstetrical fees
- B. Physician may charge additional fee if:
 - 1. Income of married person is over \$2,500
 - 2. Income of single person is over \$2,000
 - 3. Patient voluntarily occupies a private room
- C. Covered for X-ray, anesthesia, and emergency care
- D. Includes wife and unmarried children under 19

IV. Life Insurance

- A. Commercial Company
- B. Pays \$2,000.00
- C. \$500 paid immediately and \$100 per month for 15 months.

Our workers seem satisfied with this plan on the whole. The few criticisms which we have heard in trustee meetings concern the size of the fees which certain physicians demand in addition to the fee paid by Michigan Medical Service.

Our main plant at Willow Run is actually out in the country but in close proximity to a number of small communities. It is easy to ascertain what doctors care for our employees. In the past three weeks, I have sent out letters to the 55 doctors of medicine in these surrounding communities. I explained that I was giving a talk here tonight about our plan of medical care. A return postcard was enclosed with the following questions:

1. Are you in favor of such plans as the K-F— UAW-CIO Trust Fund? Yes ()
No ()
Indifferent ()

2. Has the Blue Cross and Surgical coverage of all K-F employees been of benefit to you? Yes ()
No ()

3. Has the plan been detrimental to your medical practice in any way? Yes ()
No ()

4. Comment:

Of these 55 cards all were returned. Fifty-three physicians approved the plan and found nothing detrimental about it. Two physicians were against the whole idea of prepayment medical care.

The two adverse comments were:

"I don't like any plan that gives the patient the idea, even erroneously, that everything is paid for and that is the impression a lot of your workers have. When I treat them at my office, I send the bill to Blue Cross, as they insist should be done, and get a refusal. The patient also usually refuses to pay, insisting I should get it from the insurance company."

"Have only an occasional K-F patient. Personal reaction to the Fund is the same as to John L. Lewis' 10 cents a ton royalty on coal. The cost is ultimately passed on to the consumer. The basic criticism is that such plans destroy the worker's incentive for thrift and personal responsibility for the future or present. Recognized that this is voluntary on the part of K-F, not the worker. Provides more than the Government would under any compulsory plan."

Excerpts from some of the laudatory cards follow:

"I can see nothing but benefit in the plan and feel that anything that can be done to spread the light should be encouraged."

"K-F Medical Prepayment Plan is a great step forward toward meeting medical needs of the employee with due compensation for the doctor. I'm all for it."

"I am heartily in favor of your entire plan."

"Plan has worked to very good advantage for both patient and physician. I hope it is generally accepted throughout industry as a whole."

"Thirty bucks a week for 26 weeks will create a new disease. It is very liberal for those who will need it. For the one that needs it, five others will take advantage of it."

"This is better than Social Medicine."

"I think we need many more such plans by labor and management."

"I think this is a forward-looking policy and will undoubtedly

(Continued on page 383)

REPUBLICAN NATIONAL HEALTH BILL

EDITOR'S NOTE: The 81st Congress has been deluged with health legislation. Among the numerous national health bills, the Republican-sponsored S.1970 has attracted wide attention.

The MEDICAL ANNALS is indebted to Dr. Lawrence of the A.M.A.'s Washington Office for the following analysis.

S.1970

Introduced by Mr. Flanders for himself and Mr. Ives, May 31st. Referred to the Committee on Labor and Public Welfare.

House Bills 4918 through 4924 introduced by Mr. Herter, Mr. Javits, Mr. Case, Mr. Nixon, Mr. Morton, Mr. Fulton, and Mr. Hale, May 31st, are identical.

BRIEF DESCRIPTION

Proposed National Health Act is developed within the framework of the Public Health Service Act by the following: (a) adding a new Title VII which provides an immediate health and medical service program, (b) adding a new Title VIII which provides for a long range survey of national health needs, (c) amending existing provisions of Title VI relating to hospital construction, (d) adding a new provision to Title III regarding local public health units.

PURPOSE

It is the purpose of this title to provide, pending the initial detailed study under Title VIII of the present health and medical needs of the Nation, *immediate Federal assistance* so as (a) to *enable voluntary prepayment health service* plans to make their services generally available in the communities which they serve at charges based on the income of the subscribers; (b) to encourage the *establishment of local administrative* facilities embracing functional health service regions and districts in order to facilitate the effectuation of present and future health programs; (c) to enable *non-profit hospitals and medical and nursing schools* to maintain and improve their services and facilities; and (d) to assist *voluntary prepayment health service* plans to construct and equip personal health service centers.

ADMINISTRATION

The Surgeon General, with the approval of the Administrator of Federal Security Agency, "shall cooperate with and render advice and assistance to States and appropriate public authorities in for-

mulating and operating State plans." For his assistance the Surgeon General shall create a ten member Federal Health Council, *none of whom shall be professionally engaged in the provision of health or medical services*. The Council is authorized to appoint *special advisory and technical committees* of persons who are expert in the various subdivisions of the health field.

DEFINITIONS

Prepayment health service plan means a membership or cooperative corporation (no part of the net earnings of which inures to the benefit of any private shareholder or individual), engaged exclusively in operating such plan.

Cooperating prepayment health service plan means an approved prepayment plan operating in at least one regional program under a State plan with the following conditions:

- (1) At all times a *majority of the members* of the governing board shall not themselves furnish health services or represent others who do.
- (2) That benefits offered will be under contracts (called, "participating contracts") approved by the health region authority.

Service benefits, means full payment for specified personal health services of licensed physicians, hospitals and others that are cooperating, at stated fees or charges.

Indemnity benefits, means payments of specified sums of money toward the cost of specified personal health services.

Subscriber's income, means adjusted gross income exempting all in excess of \$5,000.

Health service region, means a region which is coterminous with a region established by the State or designated by the Governor of the State, with the object of delimiting a broad natural health service area.

Health service district, means a "logical grouping of two or more health service regions (not necessarily in the same State), for achieving an interrelated network of health personnel and facilities centering on a four year medical college" which can provide outlying areas with services and personnel, public health services and medical research and education.

STATE PLANS

The *requirements* for State plans are elaborately stated, some of which are: establishment of (1) a State Health Council, (2) health region authorities, (3) health district councils, all of which shall consult with appropriate technical advisory committees. A percentage of the gross income of each plan will be used for *making payments to the medical college* of the district for financing postgraduate study. It shall estimate the "cost norm" of each region upon which the subscription charges are to be based; make provision permitting any employee to authorize his employer to *deduct premium from wages*; make provision for payment in full or in part, of subscription charges of persons who become entitled to receive unemployment benefits and of persons receiving any form of public assistance.

FEDERAL AID FOR INSURANCE PROGRAMS

Federal funds would be available to States on a formula ranging from 33 $\frac{1}{3}$ % to 75%. Such Federal funds, however, would not be in excess of \$15 for every person covered under the State plan. In addition Federal funds would be available on a *loan basis* at no interest in equal amounts to funds raised within the States for the purpose of initiating a program. Still another feature in this connection is the establishment of a *\$10,000,000 revolving construction loan fund* to be available at a rate of four Federal dollars to one State dollar for the purpose of building and equipping small local medical centers for the group practice of medicine.

TO ALLEVIATE THE SHORTAGE OF MEDICAL PERSONNEL

Federal funds would be available to schools for maintaining medical and nursing students. Medical schools could also obtain Federal funds for tuition at the rate of \$500 per student for average enrollment and \$1,000 per student for those enrolled over the average (on an annual basis). Schools for nurses would allow \$200 for each student up to the normal enrollment and \$1,000 per student in excess of normal. Funds would be available for school construction and equipment acquisition on a 50% matching basis. All of this portion of the program would be under the supervision of the Surgeon

General. There is an express prohibition against any officer or employee of the United States Government exercising any control over school curriculums, teaching personnel or administration of any school or the admission of applicants thereto.

TO OBTAIN MORE HOSPITAL BEDS

The Hospital Survey and Construction Act is amended by adding \$100,000,000 annually to the present appropriation of \$75,000,000 per year and the inclusion of language permitting these funds to be used for the construction of diagnostic and health service centers.

LOCAL PUBLIC HEALTH UNITS

Present provisions for assistance to local public health units are liberalized to the extent that if a State provides a plan for extending the coverage and services of such units, it is entitled to receive from the Federal Government a percentage of the cost of the plan not to exceed 66 $\frac{2}{3}$ %.

SPECIAL NEED AREAS

The bill provides that in areas where there are less than eight doctors per ten thousand population a mixture of Federal and State funds would be provided for the establishment of financial incentives to attract medical personnel and to provide traveling clinics.

STUDY AND PLANNING COMMISSION

The bill creates a bi-partisan Federal Health Study and Planning Commission of twelve members: four appointed by each, the President, the President of the Senate, and the Speaker of the House, one-half of each group must be selected from private life (*there is no absolute guarantee that a physician would be among these members*). The commission is to make studies of *health service* needs, gather data regarding the *nation's resources* and personnel facilities, etc., to determine ways and means to improve existing conditions. It would gather data also regarding *research* into the basic sciences, the problem of *health education* and ways to eradicate certain dangerous diseases. A report of pressing problems would be made to Congress within two years, and in 1953 a complete report submitted, together with a *twenty year national health program*, and thereafter report progress every two years.

COST

The authors of the bill estimate the total expenditures to approximate \$300,000,000 the first year, assuming a maximum response, and by 1953 \$850,000,000 annually.

Federal annual contribution to pre-payment plans by 1953.....	\$500,000,000
Medical and nursing school assistance, annually.....	30,000,000
Hospital construction, annually.....	175,000,000
Local public health units assistance, annually.....	30,000,000
Comprehensive health study and planning, annually.....	5,000,000
Total.....	\$740,000,000

THE SPIRIT OF THE BILL

The authors say the bill in all its parts assigns the Federal Government the role of assisting local and State undertakings. In effect it says to the families of America and to local and State Government, "The National Government offers to back up what you undertake."

* * *

NOTE: Other bills, S.1969 and H.R.4925 through H.R.4931, providing for *deduction of health insurance premiums* from personal income tax have been introduced by the same authors. The purpose of these bills is to provide inducement for individuals to provide coverage for themselves.

JOS. S. LAWRENCE, M.D.
Director, Washington Office

COMMENTS No. 15

JUNE 15, 1949

MEMBERSHIP

The following applicants for membership were duly elected to membership at the meeting of the Executive Board, May 23, 1949, in accord with Amendment XI, Section 2, of the Constitution and By-laws of the Society:

Active Members

Jeanne C. Bateman, 1229 37th Street, N.W.
Nicholas J. Cotsonas, Jr., 1813 23rd Street, S.E.

Addison M. Duval, St. Elizabeths Hospital
William H. Ferguson, 1801 Eye Street, N.W.
Morris E. Krucoff, 915 19th Street, N.W.
Gordon S. Letterman, 2019 R Street, N.W.
Sidney Lyons, 1726 M Street, N.W.
Robert P. Odenwald, Catholic University
Samuel B. Pole, III, 2711 South Cleveland Street, Arlington, Va.
John J. Raedy, 2904 Nichols Avenue, S.E.
Charles Worth Sprunt, 1722 19th Street, N.W.
Stanley H. Steinberg, 4214 16th Street, N.W.
Harold T. Yates, 3423 Martha Custis Drive, Alexandria, Va.
Eugene J. Yorkoff, 20 Mississippi Avenue, S.E.

Associate Members

DeWitt E. DeLawter, 3848 Porter Street, N.W.
George A. Gray, Jr., 104 Chevy Chase Drive, Bethesda, Md.
George B. Guarino, 1210 North Rolfe Street, Arlington, Va.
Ross M. Lehman, Jr., 315 Evarts Street, N.E.

CALENDAR OF MEETINGS

June 2	Committee on Public Policy
June 7	Committee on Public Relations
June 13	Committee on Special Exhibit, Annual Scientific Assembly
June 14	D. C. Dental Society
June 15	Committee on Public Health Exhibits, A.S.A. Washington Gynecological Society
June 16	D. C. Chapter, Arthritis and Rheumatism Foundation
June 20	Grievance Committee
June 23	D. C. League of Nursing Education
June 27	Graduate Nurses Association Executive Board Board of Censors
June 29	Section on Pathology Board of Trustees, Medical Service

BOOKS RECEIVED FOR REVIEW

Acknowledgement is made of the following book which was received for review:

Psychosomatic Medicine—The Clinical Application of Psychopathology to General Medical Problems 2nd ed. EDWARD WEISS, M.D., Professor of Clinical Medicine, Temple University Medical School, Philadelphia, AND O. SPURGEON ENGLISH, M.D., Professor of Psychiatry, Temple University Medical School, Philadelphia. Price, \$9.50. Pp. 803. Philadelphia: Saunders, 1949.

News and Personals

Not only was there a large delegation of Washington physicians and their families in attendance at the **98th Annual Session of the American Medical Association**, held in Atlantic City, June 6-10, but the medical profession in the Nation's Capital was more than adequately represented on the scientific and other programs.

Representing the Society officially in the House of Delegates were **Drs. Coursen B. Conklin** and **Herbert P. Ramsey**. Dr. Ramsey was appointed a member of the Reference Committee on Insurance Plans and Medical Service. Also present at the sessions of the House were President-elect Dr. Walter Freeman, Dr. Hugh H. Hussey, Alternate Delegate, Theodore Wiprud, Secretary, and J. Richard Connelly, Assistant Secretary of the Society.

On Sunday, June 6, Mr. Wiprud was moderator of the panel discussion on the handling of emergency calls which opened the Fifth National Conference of County Medical Society Officers. Mr. Connelly addressed the conference on "The 24-Hour Telephone Service." He described the operation of MEDICAL BUREAU and how it serves the people of the District of Columbia.

Participants in the scientific program, the groups before whom they appeared and their subjects were: Dr. Lloyd H. Mousel, Section on Surgery, General and Abdominal, "Cyclopropane Anesthesia"; Dr. Leonard A. Scheele, Section on Preventive Medicine and Public Health, "The Role of the Physician in Public Health Progress"; Dr. W. Calhoun Stirling, Section on Urology, "Analysis of the Treatment of Bladder Tumors"; Drs. Charles F. Geschickter and Murray M. Copeland, Section on Orthopedic Surgery, "Parosteal Osteoma or Myo-osseous Osteoma"; Dr. Allen S. Lloyd, Section on Orthopedic Surgery, "Irritation of the Tibial and Peroneal Nerves as an Unrecognized Cause of Knee Pain"; and Dr. Irving B. Brick, Section on Radiology, "Incidence of Hiatus Hernia in Patients Without Symptoms."

Washington physicians who led in the discussion

of papers were: Drs. Harry F. Dowling, Harold Jeghers, E. Clarence Rice, William F. O'Donnell, Louis K. Alpert, O. Benwood Hunter, Pearce Bailey, Walter Freeman, Frank J. Eichenlaub, Julius S. Neviasser, Brian B. Blades, Leonard T. Peterson, Irving B. Brick, and Aubrey O. Hampton.

Dr. Margaret Mary Nicholson, Secretary of the Section on Pediatrics, was elected its Chairman.

Dr. S. U. Marietta, Chairman of the Section on Diseases of the Chest, gave his Chairman's Address at the opening session of the Section.

Drs. J. Ross Veal, John N. Shadid and Thomas J. Dugan of Georgetown University School of Medicine, sponsored an exhibit on "Surgery of the Sympathetic Nervous System."

An Exhibit Symposium on Physical Medicine and Rehabilitation, sponsored by the Baruch Committee on Physical Medicine, was presented under the auspices of the following committee: Dr. Frank H. Krusen, Rochester, Minn., Chairman; Dr. Winfred Overholser, Washington; and Dr. Howard A. Rusk, New York. Dr. Overholser contributed an exhibit on "Occupational Therapy in Psychiatry."

A series of clinics and conferences was conducted by members of the George F. Baker Clinic and the American Diabetes Association under the chairmanship of Dr. Howard F. Root, Boston, in connection with the Exhibit Symposium on Diabetes. Dr. John A. Reed addressed this group on "Medical Treatment of Surgical Diabetes."

Dr. William J. Tobin was a demonstrator assisting in the Special Exhibit on Fractures.

Dr. A. B. C. Knudson, Division of Physical Medicine Rehabilitation, Veterans Administration, contributed an exhibit on "Rehabilitation of the Hard of Hearing."

Among the former graduates of the George Washington University who were honored by the University's General Alumni Association at the commencement exercises on June 1, was **Dr. Robert H.**

Harmon, Director of the University glee clubs for the past 25 years. Dr. Harmon received an award for "achievement in choral leadership." The University Men's Glee Club, under Dr. Harmon's direction was named intercollegiate champion in March, 1930, at a competition held in Carnegie Hall, New York.

Miss Edith M. Haydon, Director of Nurses and the School of Nursing, St. Elizabeths Hospital, Washington, also received the award for "achievement in nursing." Miss Haydon received her bachelor of arts degree at George Washington University in 1928, her master of science

degree in psychology from Catholic University in 1930, and was graduated from the Army Nursing School in 1921. She has been at St. Elizabeths Hospital since 1921 and has been Chief of the Nursing Service since 1926. With Dr. Arthur B. Noyes she wrote the "Textbook of Psychiatric Nurses."

Dr. John L. Parks is Chairman of the Scientific and Educational Exhibit Committee of the International and Fourth American Congress on Obstetrics and Gynecology. Members of his committee are Dr. Miguel V. Falsia of Buenos Aires, Sir Eardley Holland of London, Dr. Mortimer N. Hyams of New York, Dr. Alice F. Maxwell of San Francisco, Dr. Lawrence M. Randall of Rochester, Dr. Jorge



FLOOD LIGHTS PURCHASED BY AUXILIARY INSTALLED

The Woman's Auxiliary has on a number of occasions assisted the Society with various projects. The most recent was cleaning and pointing up the front of the Society's building and the installation of flood lights. The above photograph was taken soon after this work was completed.

The Auxiliary has been very active this year under the able leadership of Mrs. Edgar E. Quayle. Largely responsible for raising the funds turned over to the Society for the above project was Mrs. Richard H. Todd, Chairman of the Ways and Means Committee. Members of Mrs. Todd's committee were Mmes. Edward L. Morrison, Harold R. Downey, Samuel A. Alexander, Clarence K. Fraser, Henry A. Hornthal, and John H. Hill.

de Rezende of Rio de Janeiro, Dr. Erik Rydberg of Copenhagen, Dr. Donald G. Tollefson of Los Angeles and Dr. Frank E. Whitacre of Memphis.

The Washington Heart Association's new president, **Dr. J. Ross Veal**, announced on May 23 at a dinner given in honor of Mr. John H. Wilkins, Jr., general chairman of the Association's recent fund-raising campaign, a broad program of research, training and service to victims of heart disease. The campaign for funds which Mr. Wilkins headed netted about \$63,000. Included in this amount was about a \$9,000 contribution from the Washington Variety Club, earmarked for the purchase of diagnostic

equipment needed at heart clinics at Children's and Emergency Hospitals.

Dr. Bernard J. Walsh reported that 96 young heart victims will be taken to a specially supervised summer camp in Prince William National Forest, Dumfries, Va., beginning August 15. This is a joint project sponsored by the Association and the *Washington Evening Star*.

Thirty per cent of the funds raised in Washington goes to the American Heart Association to establish special research fellowships, at least one of which will be from the District of Columbia. A local research program is also planned.

Besides Dr. Veal, the following were elected officers of the District association: Dr. Clayton B. Ethridge, Vice President; Dr. Benjamin Manchester, Secretary, and Frank T. Parsons, Treasurer.

On May 15, the Honor Awards Ceremony was held at the United States Department of Agriculture in Washington. The Allergens Research Division of the Bureau of Agriculture and Industrial Chemistry, of which **Dr. Harry S. Bernton** is a staff member, received a citation for outstanding achievement "in fundamental chemical and biological research on the allergenic components of agricultural products, which has markedly advanced scientific knowledge of allergens, made possible more accurate methods for the quantitative determination of allergenic activity, and contributed significantly to wider utilization of farm commodities and to the general health and welfare."

Colonel Elbert DeCoursey, MC, USA, has taken over as Commandant of the Army Medical Department Research and Graduate School at the Army Medical Center. He succeeds Colonel Rufus L. Holt, MC, USA, who has held the position since February, 1946.

The new commandant, a native of Kentucky, has headed the laboratory service of Brooke General Hospital, Fort Sam Houston, Texas, for the past two years. He served as consultant to the Division of Biology and Medicine for the U. S. Atomic Energy Commission during 1948. In 1945 he was a member of the Joint Commission for the Investigation of the Effects of the Atomic Bomb in Japan, being Director of the Army Group in Nagasaki. Colonel DeCoursey was also a member of the Naval Medical Research Section and Radiologic Safety Section, Operation "Crossroads" at Bikini in 1946.

He received his medical degree from Johns Hopkins University Medical School in 1928 and was graduated from the Army Medical School in 1929. During the four-year period from 1935 to 1939, he was Assistant Director of the Army Institute of Pathology in Washington and lectured on ophthalmic pathology at George Washington University.

Colonel DeCoursey was a pathologist for the Canal Zone Board of Health Laboratory (1932-34); Director of the Ninth Army Area Laboratory at Fort Lewis, Washington (1941-43) and Laboratory Consultant, Pacific Ocean theater (1944-46).

He is a Fellow of the American College of Physicians and a member of the American Society of Clinical Pathologists.

In 1945, he was the recipient of the Legion of Merit medal.

During recent months, the Commandant has been engaged in lecturing on the Medical Aspects of Atomic Explosion.

In a statement released for publication on June 11, **Mr. William E. Warne, President of Group Health Association, Washington**, expressed his gratification over the announcement by the American Medical Association that "it has sent to its local societies a list of 20 suggested principles which were drafted by the AMA to serve as a basis for evaluating consumer-sponsored-non-profit, prepaid medical care programs."

As a member of the Cooperative Health Federation of America, Group Health participated in the conferences with the AMA's Council on Medical Services along with representatives of other cooperatives, farm organizations, and labor groups, in formulating a set of principles. Melvin L. Dollar, Executive Director of GHA, represented the local medical care cooperative in the recent discussions in Chicago and Atlantic City.

GHA, the statement continues, "sees the move on the part of the AMA as a definite step forward in the development of consumer-sponsored health plans and in furthering good relations between these plans and the organized medical profession," but expressed regret, "that the AMA did not take a more positive stand in recommending that local medical societies give encouragement to the development of these voluntary plans." Mr. Warne expressed confidence "that relations between Group Health of Washington and the Medical Society of the District

of Columbia may be further strengthened by this development."

Surgeon General Leonard A. Scheele of the Public Health Service was head of the American delegation to the second World Health Assembly which met in Rome in June. Other delegates were Mrs. Quincy Wright of Chicago, Director of the Council on Foreign Relations, and Dr. Edward S. Rogers, Dean of the School of Public Health of the University of California. Alternate delegates were Howard B. Calderwood of the State Department's Division of United Nations Economic and Social Affairs; Mr. H. Van Zile Hyde, Medical Director of the Public Health Service, and Dr. James R. Miller, member of the Board of Trustees of the American Medical Association.

Senator Ellender, Democrat of Louisiana, and Representative Pfeifer, Democrat of New York, were Congressional advisers to the delegation.

The World Health Assembly is sponsored by United Nations World Health Organization consisting of 62 member nations.

Dr. E. P. Luongo, Medical Director of the General Petroleum Corporation, Los Angeles, and an Associate member of the Medical Society of the District of Columbia, was elected Vice President of the Western Association of Industrial Physicians and Surgeons at the Association's annual meeting held at the Biltmore Hotel in Los Angeles on May 6 and 7. Prior to his election as Vice President, Dr. Luongo served as a Director of the Association.

At the annual meeting of the **Potomac Chapter of the American College of Chest Physicians**, held in Baltimore on April 27, the following officers were elected for the year 1949-50:

Dr. Edgar W. Davis of Washington, *President*; Dr. Hugh G. Whitehead of Baltimore, *Vice President*; Dr. Milton B. Kress of Towson, Md., *Secretary-Treasurer*.

The **George Washington University Medical Society** held its annual business meeting on May 21. **Dr. Herbert S. Gates** was installed as President. Elected to other offices in the Society were:

Dr. H. J. Russell McNitt, *President-elect*; Dr. John H. Lyons, *First Vice President*; Dr. Helen Gladys Kain, *Second Vice President*; and Dr. Oscar B. Hunter, Sr., *Secretary-Treasurer*.

Dr. James I. Boyd, retiring President, was named to the Executive Council for five years.

The District of Columbia Section of the American Congress of Physical Medicine were guests of **Dr. G. J. B. Barger**, 1125 Buchanan St., N.W., at a monthly social breakfast on June 1. The breakfast was followed by a demonstration of ultraviolet blood irradiation by the closed method.

Dr. Caroline Jackson was elected President of the Womens Medical Society of the District of Columbia on May 27. Other officers elected were:

Dr. Elizabeth S. Kahler, *Vice President*; Dr. Eloise W. Kailin, *Recording Secretary*, Dr. Josephine Renshaw, *Corresponding Secretary*, and Dr. Mary K. L. Sartwell, *Treasurer*.

Dr. Helen Gladys Kain was named delegate to the American Medical Women's Convention held in Atlantic City on June 4 and 5.

Precommencement exercises for the **graduating class of the George Washington University School of Medicine** were held at the Medical Society building May 31. The principal speaker was **Dr. Winfred Overholser**, Professor of Psychiatry at George Washington. Dr. Walter A. Bloedorn, Dean of the School of Medicine, administered the Oath of Hippocrates to the class. Greetings were extended by Robert Frederick Lash, President of the Senior Class. The invocation and the benediction were given by the Reverend Robert Thomas Bridge, acting minister, New York Avenue Presbyterian Church.

Among the speakers on the program at the 27th Annual Session of the Association of Former Internes of Freedmen's Hospital on May 31, were **Dr. Louis K. Alpert**, Chief of General Medical Service at Mt. Alto Hospital, and **Dr. S. Ross Taggart**, Director of the Venereal Disease Division, District Health Department.

The medical staff of Children's Hospital gave a dinner in honor of its medical director, **Dr. Montgomery Blair, Jr.** at the Chevy Chase Club on May 25. Among the speakers were Drs. Edgar W. Davis, Joseph S. Wall, Edgar P. Copeland and John A. Washington. Dr. William S. Anderson presided.

Under Dr. Blair's guidance, the out-patient department of Children's has become one of the largest

in the nation. He also helped to originate the master plan for the new hospital wing, construction of which will begin late this summer.

Dr. Naomi M. Kanof was appointed Chairman of the Editorial Board of *The Journal of Investigative Dermatology* at a meeting of the Society for Investigative Dermatology in Atlantic City, June 11.

Dr. Charles Stanley White and **Watson Davis**, Director of Science Service, were elected to the Board of Trustees of George Washington University on May 20.

The Washington Orthopedic Club announced recently that at its annual business meeting on May 23 the following officers were elected:

Dr. Milton C. Cobey, *President*; **Dr. Thomas M. Foley**, *Vice President*; **Dr. Everett J. Gordon**, *Secretary-Treasurer*.

Dr. Wallace M. Yater participated in the Annual Postgraduate Refresher Course of the University of Louisville School of Medicine at Louisville, Ky., on June 13. The subject of his lecture, "Pulmonary Arteriovenous Fistula."

The following are the new officers of the **Washington Psychoanalytic Society**, elected at its business meeting on April 23:

Dr. Rex E. Buxton, *President*; **Dr. Alexander Halperin**, *Vice President*; **Dr. Robert A. Cohen**, *Secretary-Treasurer*.

Miss Edith A. Torkington has been named administrator of Children's Hospital. Miss Torkington takes over some of the duties of the hospital's medical director, **Dr. Montgomery Blair, Jr.** **Dr. Blair** will devote himself largely to the institution's professional program.

Miss Torkington has served the hospital for more than 20 years. She was formerly Assistant Director of Nursing, and for eight years was Superintendent of the Children's Country Home of Washington. She served in the Pacific during the War.

John Francis Potter, a member of the graduating class of Georgetown University School of Medicine, received the annual Cahill Award for his research thesis "Aneurysm of the Splenic Artery," on June 2.

A medal and a check for \$50 was presented to the senior medical student by **Mrs. James A. Cahill**, whose husband was professor of surgery at Georgetown for nine years. The award was given first in 1943, a year after **Dr. Cahill's** death.

Dr. Robert J. Coffey, Professor of Surgery at Georgetown, praised **Potter's** thesis which, he stated, would be published in a national medical journal.

Dr. Brian B. Blades, Professor of Surgery, George Washington University School of Medicine, appeared on the monthly program at the Army Medical Center, Washington, on June 16. Subject of his lecture, "Arteriovenous Fistulas of the Lung."

Georgetown University conferred an honorary degree of the Doctor of Laws on **Surgeon General Leonard A. Scheele of the Public Health Service** at its commencement exercises in June.

Dr. John A. Reed, President of the Hospital Service Agency and former President of the Diabetes Association of the District of Columbia, was elected Secretary of the American Diabetes Association at the meeting of the Association held in Atlantic City in June.

Dr. Winfred Overholser was awarded the Boston University Alumni Medal for "distinguished public service" during alumni day exercises in Boston on June 4. **Dr. Overholser** graduated from the Boston University's medical school in 1916. An honorary Doctor of Science degree was conferred upon him by the school in 1940.

Dr. Alan J. Chenery was installed President of the Alumni Association of the Medical College of Virginia at Richmond on June 6. The retiring president is **Dr. Robert J. Wilkinson** of Huntington, W. Va., President of the Southeastern Surgical Congress.

The appointment of **Major General Albert W. Kenner** as Medical Director of Columbia Hospital, Washington, was announced on June 1. General Kenner resigned his post in the Army Medical Corps after 33 years of service.

A native Washingtonian, he attended public schools in the District of Columbia and received

degrees of pharmacy and medicine at George Washington University, the latter degree in 1915. The following year he entered the Army Medical Corps and his subsequent career included a number of tours of overseas duty.

General Kenner landed at Casablanca as chief surgeon for General Patton's task force, serving in the same position under General Eisenhower during the North Africa campaign. He rejoined General Eisenhower in London in 1944 as chief medical officer just prior to the invasion. Later he was chief surgeon of the occupation forces. He returned to the United States in 1946 and is now President of the Army Personnel Board.

Dr. Raymond A. Osbourn has just returned to his practice in dermatology, after completing a year's course of graduate study at the University of Pennsylvania. His office is located at 1835 Eye Street, N.W.

Dr. Frank D. Costenbader was one of nine lecturers from various parts of the country to participate in a recent four-week Symposium on Strabismus at the University of Iowa. Dr. Costenbader gave three lectures during the week of May 23-28 on the following subjects: "Management of Convergent Strabismus"; "Management of Divergent Strabismus"; and "Factors In The Cure of Strabismus."

Dr. G. Victor Simpson gave a series of lectures at Gorgas Hospital, Ancon, Canal Zone, during the week of May 17-25. His subjects were: "Etiological Diagnosis of Uveitis"; "External Eye Diseases"; and "Non-Surgical Management of Divergent Excess."

Drs. Walter Freeman, Paul Chodoff and Oscar Legault presented papers on the "Results of Electro-Shock Therapy" before the American Psychiatric Association in Montreal, May 23-26, 1949. **Dr. Leon Yochelson** addressed the Association on "Psychopathic Personality." **Dr. Harold Stevens** presented a paper on "Neuropsychiatry in Group Medical Practice."

At the recent meeting of the American College of

Radiology in Atlantic City, June 5, 1949, **Dr. Aubrey O. Hampton** was elected to the Board of Chancellors and **Dr. Alfred A. J. Den** was elected Councilor to the College for the District of Columbia.

WOMAN'S AUXILIARY NOTES

Mrs. Luther H. Kice, National Auxiliary President, made a surprise visit to members of the Woman's Auxiliary to the District Medical Society a few days before the American Medical Association Convention in Atlantic City in June. Mrs. Edgar E. Quayle, President of the District Auxiliary, gave a dinner party honoring Mrs. Kice at the Congressional Country Club. Those invited were the delegates and alternates to the National Auxiliary's Convention and their husbands.

On Monday afternoon, June 6, 1949, a tea was given at Haddon Hall, Atlantic City, in honor of Mrs. David B. Allman, President-elect of the Woman's Auxiliary to the AMA. Members of the National Board of Directors and state presidents were invited. Guest speakers were Mr. Clem Whitaker and Miss Leone Baxter, directors of the AMA National Education Campaign. The delegate from Hawaii donated orchids which were given to each person attending.

On Monday night a fashion show, entitled "Cotton—A Family Affair", was presented by the Cotton Textile Institute. Men, women and children modeled. Among many seen enjoying the show were Dr. and Mrs. Walter Freeman.

On Wednesday, June 8, 1949, a luncheon was given for Mrs. Luther H. Kice and Mrs. David B. Allman, who was installed as the new president. Guests of honor were Dr. R. L. Sensenich, President of AMA; Dr. Ernest E. Irons, President-elect of AMA; and Dr. George F. Lull, Secretary and General Manager of AMA.

Mrs. Luther H. Kice appointed Mrs. Edgar E. Quayle to the Elections Committee for the Convention. Mrs. Quayle was also elected to the National Nominating Committee.

MRS. MARCEL J. FORET
Publicity Chairman



STERLING RUFFIN, M.D.

STERLING RUFFIN, M.D.

1866-1949

The death of Dr. Sterling Ruffin, which occurred in George Washington University Hospital, June 1, 1949, marks the passing of Washington's beloved dean of medicine and has occasioned profound sadness in many of the homes in which he has ministered most faithfully and efficiently across the years.

The son of Dr. John Kirkland and Mrs. Sarah Elizabeth (Taylor) Ruffin and grandson of Chief Justice Thomas Ruffin of North Carolina, he was born in Graham, North Carolina, on July 20, 1866. This gallant son and gentleman of chivalry has throughout his life most nobly perpetuated the family tradition by both precept and example. Shortly following graduation from the University of his native state in 1884, he came to make his residence in Washington and later entered upon the study of medicine in the Columbian (now George Washington) University, graduating with distinction in 1890. Three years later, having completed his postgraduate work, including a course in the London School of Tropical Medicine, he entered private practice. Early he became a member of the medical faculty of his Alma Mater and in 1902 succeeded the late Dr. W. W. Johnston as Professor of the Practice of Medicine, holding that chair until 1924, then becoming Professor Emeritus.

He was physician-in-chief to George Washington University Hospital and consulting physician to Garfield Memorial Hospital. He was a member of the American Medical Association, the American Climatological Association, the Medical Society of the District of Columbia (its president 1935-36), the George Washington University Medical and Clinico-Pathological Societies, a prominent member of the Metropolitan Club, and Senior Director of the Riggs National Bank of Washington.

Unmarried, he resided at 1150 Connecticut Avenue, Northwest, having retired from practice in 1946. Surviving him are a brother, Mr. Thomas Ruffin, Washington attorney, formerly Professor of Law at the University of North Carolina; a nephew, Dr. William B. Sims, prominent physician of this city; and three nieces, Miss Jane Sims of Richmond, Virginia, Mrs. Emmanuel Wallenstein also of Richmond, and Miss Barbara Ruffin of Washington, daughter of a younger brother, Dr. George M. Ruffin, an able and well-known physician whose passing in

1937 was a distinct grief to his many patients and a loss to the community.

When Dr. Ruffin entered the field of medicine he had truly found his niche in life. His able response to his calling over these fifty-odd years endeared him to the hearts of this entire community. He became an institution; an ornament to the profession and an inspiration to his fellows.

Early in the second administration of the late President Woodrow Wilson, Dr. Ruffin, while attending a convention in Boston, received a telegram from the White House announcing his appointment as a member of the Board of Commissioners of the District of Columbia. Within the hour a reply was enroute expressing appreciation and stating that the demands of his practice rendered acceptance impossible. Together with his friend and peer, Dr. H. A. Fowler, of this city, Dr. Ruffin served in consultation with the late Admiral Cary T. Grayson in the last illness of President Wilson.

And so ranged the scope of his extensive practice from dignitary to pauper—faithfully ministering to all with like skill, diligence and sympathy. He is known to have been especially attentive to those who were doomed, his gentle charm and personality transmitting to them that calm—that surcease—not afforded by drug therapy.

"Were everyone for whom he did some loving service to bring a blossom to his grave he would sleep tonight beneath a wilderness of flowers."

Truly it may be said of him that he was symbolic of all that is highest and best in scientific and ethical American medicine, and the dangers now lurking upon its threshold were his deepest concern.

From this very inadequate sketch we now turn to mingle with the many who mourn.

"Let us weep in our darkness, but weep not for him:

Not for him who, departing, leaves millions in tears:

Not for him who has died full of honor and years:

Not for him who ascended Fame's ladder so high:

From the round at the top he has stepped to the sky."

R. ARTHUR HOOE, M.D.

BOOK REVIEWS

Handbook of Diseases of the Skin. RICHARD L. SUTTON, M.D., Emeritus Professor of Dermatology and Syphilology, University of Kansas Medical School, AND RICHARD L. SUTTON, JR., M.D., Associate Professor of Dermatology and Syphilology, University of Kansas Medical School. Price, \$12.50. Pp. 749, with 1057 illustrations. St. Louis: Mosby, 1949.

This textbook is a concise working volume for the use of medical students, practitioners and specialists. Its arrangement makes it easy to find and learn the material. The authors have given credit to a multiplicity of sources for the origin of their material. The type is arranged in different sizes so that the larger type gives you the broader outlines and the smaller type presents additional details. Although some typographical errors were found, these were few. The photographs and drawings were well selected and reproduced. There were a few to which there could be objection to the diagnosis, as figure 308, which is presented as Condyloma Latum and which is probably correctly Verruca Acuminata, and figure 371, which is called Pustular Psoriasis. Both the figure and text leave the concept of Pustular Psoriasis indefinite. Figure 414 shows Seborrheic Dermatitis of the palm, which often is a questionable entity. But the large number of recognizable photographs give definite visual pathology which is helpful in arriving at a good diagnosis.

The preliminary basic subjects as anatomy, embryology, physiology, and pathology are very well outlined and are essentially given in outline form.

The dermatoses are well classified and this is done basically in terms of the etiologic factors involved. Unfortunately, the subject of dermatology does not lend itself to a complete etiologic classification, but the authors have made an excellent grouping.

The specific diseases or groups of diseases are discussed briefly. A desirable feature of the book is that it quotes the original article, giving the reference in parenthesis following the author's name. This gives varying opinions and stimulates the reading of original articles. Where there is much controversy, the authors give the original writers the opportunity to summarize the concepts.

Generally speaking, the selection of material is balanced. The book is well written without redundancy. The index is thorough and covers the subject well. This book presents an advance in dermatologic texts.

R. S.

Aureomycin—Dowling et al

(Continued from page 344)

5. PAINE, T. F., COLLINS, H. S., AND FINLAND, M.: Ann. New York Acad. Sc., 1948, **51**, 228.
6. DOWLING, H. F., LEPPER, M. H., SWEET, L. K., AND BRICKHOUSE, R. L.: Ibid., 1948, **51**, 241.

7. BLISS, E. A., AND CHANDLER, C. A.: Proc. Soc. Exper. Biol. & Med., 1948, **69**, 467.
8. CHANDLER, C. A., AND BLISS, E. A.: Ann. New York Acad. Sc., 1948, **51**, 221.
9. PRICE, C. W., RANDALL, W. A., AND WELCH, H.: Ibid., 1948, **51**, 211.
10. BRYER, M. S., AND OTHERS: J.A.M.A., 1948, **138**, 117.
11. FINLAND, M., COLLINS, H. S., AND PAINE, T. F.: Ibid., 1948, **138**, 946.
12. SPINK, W. W., BRAUDE, A. I., CASTANEDA, M. R., AND GOYTIA, R. S.: Ibid., 1948, **138**, 1145.
13. LEPPER, M. H., AND DOWLING, H. F.: Unpublished data.
14. LITTLE, P. A.: Ann. New York Acad. Sc., 1948, **51**, 246.
15. BRYER, M. S., SCHOENBACH, E. B., BLISS, E. A., AND CHANDLER, E. A.: Ibid., 1948, **51**, 254.
16. WONG, S. C., AND COX, H. R.: Ibid., 1948, **51**, 290.
17. ANIGSTEIN, L., WHITNEY, D. M., AND BENINSON, J.: Ibid., 1948, **51**, 306.
18. HEILMAN, F. R.: Proc. Staff Meet., Mayo Clin., 1948, **23**, 569.
19. O'LEARY, P. A., KIERLAND, R. R., AND HERRELL, W. E.: Ibid., 1948, **23**, 574.
20. LEPPER, M. H., DOWLING, H. F., BRICKHOUSE, R. L., AND CALDWELL, E. R.: Blood and cerebrospinal fluid concentrations of aureomycin after oral and intramuscular administration, in press.
21. SCHOENBACH, E. B., BRYER, M. S., AND LONG, P. H.: Ann. New York Acad. Sc., 1948, **51**, 267.
22. WRIGHT, L. T., AND OTHERS: Ibid., 1948, **51**, 318.
23. WRIGHT, L. T., AND OTHERS: J. A. M. A., 1948, **138**, 408.
24. COLLINS, H. S., WELLS, E. B., PAINE, T. F., AND FINLAND, M.: Proc. Soc. Exper. Biol. & Med., 1948, **69**, 174.
25. COLLINS, H. S., PAINE, T. F., AND FINLAND, M.: Ann. New York Acad. Sc., 1948, **51**, 231.
26. COLLINS, H. S., PAINE, T. F., JR., WELLS, E. B., AND FINLAND, M.: Ann. Int. Med., 1948, **29**, 1077.
27. ROSS, S., AND OTHERS: J. A. M. A., 1948, **138**, 1213.
28. LENNETTE, E. H., MEIKLEJOHN, G., AND THELEN, H. M.: Ann. New York Acad. Sc., 1948, **51**, 331.
29. SCHOENBACH, E. B.: J. A. M. A., 1949, **139**, 450.
30. SCHOENBACH, E. B., AND BRYER, M. S.: Ibid., 1949, **139**, 275.
31. KNEELAND, Y., ROSE, H. M., JR., AND GIBSON, C. D.: Am. J. Med., 1949, **6**, 41.
32. FINLAND, M., COLLINS, H. S., AND WELLS, E. B.: New England J. Med., 1949, **240**, 241.
33. BRALEY, A. E., AND SANDERS, M.: J. A. M. A., 1948, **138**, 426.
34. BRALEY, A. E., AND SANDERS, M.: Ann. New York Acad. Sc., 1948, **51**, 280.
35. WOODWARD, T. E., AND OTHERS: Ann. Int. Med., 1948, **29**, 131.

Psychiatric Aspects of Asthma—Raines

(Continued from page 357)

In summary, asthma presents itself to the psychiatrist as a clear-cut psychoneurosis, char-

acterized by the combination of a specifically determined somatic and psychic apparatus stimulated to pathologic response by an emotional disturbance arising in some interpersonal relation, manifesting itself clinically in psychiatric and somatic symptomatology, and yielding to properly applied therapy at any of the several levels of its development.

Ureteral Strictures—Kimbrough

(Continued from page 347)

SUMMARY

1. Twelve patients with ureteral stricture treated by intubated ureterotomy have been presented.

2. Sutures applied loosely were used in some cases. No sutures were used in others. The results were equally satisfactory.

3. The tubes were left in place from 2 to 7 weeks. Early removal of the tubes did not apparently influence the results.

4. Suby's solution was used postoperatively to prevent incrustation. Polythene tubes properly prepared will be a great aid in this operation.

5. Large tubes should be used, since the postoperative lumen of the ureter in a great measure depends on the size of the tube left in place.

6. The observation of normal ureteral peristalsis on pyeloscopy postoperatively indicates that the healing process is in some measure accomplished by muscle regeneration.

7. This is a valuable procedure, has a wide application, and can be used for strictures of great length.

The Family Doctor

(Continued from page 365)

while giving us a quick examination, he would ask us about all our aches and pains, which would always seem to get better when he was there. Then he would write on a sheet of paper, something which nobody but the druggist could read. I can never remember a time when he gave us bitter medicine—it was always Mother who gave it to us, and it was years before I realized that the mysterious little

notes which he sent to the druggist resulted in such bitter moments.

One of the advantages of having a family doctor is that he knows the entire family and understands them. Then too, one can always depend on him to come day or night, or at least he can assure us that we don't need him. When a serious illness occurs the family doctor will know when to call a specialist and whom to call. The average person would not know which physician was most skilled in his particular field. He would know the family financial status and charge accordingly. The family doctor has had experience in all types of illness, while a specialist is at a disadvantage because he has had experience in only his chosen field.

I think, however, that the most important advantage in having a family doctor is that the entire family knows and trusts him. I can remember how literally we took our doctor's instructions. When I had scarlet fever, our doctor told me that I had to stay in bed for three weeks. "You must not put your feet on the floor," he said. I didn't. But while listening to the "Farm and Home Hour" on the radio, a problem arose. They end their program by playing "The Star Spangled Banner," and, being a very patriotic soul, I considered it against my principles not to stand up, but I also remembered the doctor's warning. I compromised. I stood on my knees on the bed while they played our national anthem.

Prepayment Medical Care

(Continued from page 370)

edly be followed by other companies in the future. I think you are to be commended."

"All voluntary plans are beneficial to the employee and to the physician."

One can conclude then that the medical profession of our community approves our action.

I believe this type of social security program in industry is worthy of being publicized. The unions throughout the Nation are going to strive for some type of plan to secure similar benefits. If management is to provide funds for health programs, the medical profession must have concrete plans to secure these benefits which at the same time do not jeopardize the integrity of our profession.

In a larger sense, the widespread adoption of such plans may prevent the enactment of the more radical

health plans being advocated by the Federal Government. It appears to me that it is only a matter of time before some sort of Federal Health Plan will be established. My hope is that it will be based on the proposals made by Senator Taft whereby means will be provided for the unemployable, the chronically ill and the aged, to participate in the prepayment plans which are already established and are acceptable to the medical profession.

In conclusion let me say that the prepayment medical care plan which I have described tonight for an industry is advantageous because:

1. It provides what the worker desires at a low cost.

2. It sets up no bureaucracy.
3. The patient-physician relationship is unaltered.
4. The privilege of free choice of physician and hospital by the individual is preserved.
5. The doctor retains his voice in the control of those parts of the program which deal with the dispensing of his services.
6. Competition and free enterprise in the medical profession is maintained and insures the continued high level of our professional endeavor.

BIBLIOGRAPHY

1. REED, L. S.: Blue Cross and Medical Service Plans. Washington, D. C.: Federal Security Agency, USPHS, October 1947.

Washington Physicians of Yesterday—Barnes

(Continued from page 366)

attending a single one of its far-flung annual meetings. He was a Fellow (1916) of the American College of Physicians. He belonged to the Southern Medical Society and several other medical bodies; he was a Mason, member of the University Club, and his civic interests and activities were attested by membership in the Board of Trade and citizens' associations. He was a prolific contributor to medical literature and the scientific proceedings of the Medical Society.

A notable feature of the life of Dr. Barnes was his frequent appointment and attendance as delegate to national and international conventions. The list was as follows:

- 1898, to the American Medical Association, from the Medical Association of the District of Columbia.
- 1898, to the American Association of Medical Colleges, from the Medical Department of the National University.
- 1904, to the Congress on Tuberculosis, from the American Therapeutic Society.
- 1905, to the Fourth Pan American Medical Congress, as Secretary of the Section on Therapeutics, at Panama, from the Medical Society of the District of Columbia.
- 1909, to the International Medical Congress, at Budapest, from the Medical Society of the District of Columbia.
- 1930, to the United States Pharmacopeia Convention.

Dr. Barnes had interests and abilities apart from his busy professional activities. He had a love and talent for music, shared with a sister; and for several years he was a choir soloist in the Eastern Presbyterian Church. In the field of recreation he was an accomplished fisherman; and perhaps out of his pharmacological erudition he was firmly convinced of the advantage of adding oil of anise to the bait. In another field of sport he was not so happy; he raised one thoroughbred colt, but after the first run he gave up horses in disgust.

Dr. Barnes suffered cerebral hemorrhages in 1929 and 1931; and from a third attack he died, November 26, 1933. He left a son, Dr. John McGregor Barnes, who is practicing medicine in Buffalo, New York.

JOHN B. NICHOLS, M.D.

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MEDICAL ANNALS

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BREAST CARE IN PREGNANCY*

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 IN THE human embryo the breasts first appear at about 6 weeks as bilateral linear elevations of ectoderm stretching between the bases of the limb buds. Only the pectoral portion of the breast ridge in man and some of the larger mammals develops into a functional organ. Embryologically speaking, the breasts are modified sweat glands of the apocrine type, which means that the secretory cells rupture and that a portion of cell accompanies the secretion.¹

As a result of estrogenic, progestational, and lactogenic hormones passing through the placenta, the newborn infant's breasts go through all of the early changes associated with those of the mother. Breast engorgement becomes evident on the second or third day. Swelling and secretions of the breasts occur in both the male and female babies. Swelling usually lasts from 1 to 2 weeks. Of practical importance is the fact that the nipples of the newborn are frequently poorly developed and inverted. If the breasts are traumatized or if the nipples are not kept clean, the baby may develop a rather serious type of mastitis.

Throughout childhood the breasts remain as rather rudimentary structures. No significant difference occurs in the breasts of the two sexes until the prepubescent period. As a result of estrogen secretions the duct system of the young female breast begins to grow. Nipples and areolae become prominent. With the development of corpora lutea and the production of progesterone, the breasts begin to fill out in their glandular portion. Glandular enlargement and the deposition of fat are dependent upon the interrelated functions of the pituitary, ovaries, and the adrenal cortex.² Throughout reproductive life some women experience transitory cyclic premenstrual breast engorgement.

The next major endocrine change in the breast occurs with pregnancy. Pregnancy produces about the same changes as occur in puberty, but on a much more magnified scale. Increased estrogen results in greater development of the ducts. High levels of progesterone cause further proliferation of the alveolar structures. Pituitary growth and lactogenic hormones contribute to the preparation of the breast for milk production. Occasionally the breasts fail to respond to this physiologic process, or respond excessively in a pathologic manner.

* Presented at the Post-Graduate Assembly of the University of Texas, Medical Branch, in Galveston, Texas, March 22, 1949.

Following separation of the placenta the estrogen-progesterone levels drop abruptly. The influence of these hormones as suppressors of the lactogenic hormone is withdrawn. Within 24 to 72 hours after delivery the breasts begin to fill with milk. Lactation continues as long as the proper reflex stimulus is provided. Lactation does not prevent ovulation, menstruation, or conception. Although we think of lactation as a process of pregnancy, milk secretion has been reported to occur in association with genital tumors, in virgin girls, and even in men.³ In Haiti it is a common practice of mothers who cannot nurse their infants to give the baby to a grandmother whose breasts readily resume function under the stimulus of the suckling infant.⁴

Prenatal preparation for lactation should begin early in pregnancy. It is the physician's duty to instruct the patient about the changes which can be expected to occur during the entire course of pregnancy. Very early there will be enlargement of Montgomery's tubercles, and a sense of fullness and tingling. The patient should know that her breasts will reach their maximum prenatal enlargement at about the fifth month. Proper breast support early in pregnancy is essential for comfort and aids in the prevention of striae. Since the lower outer quadrants are the most dependent portions of the breasts, support should be upward and inward. At no time should the breasts be compressed. It is important to keep the nipples clean. This can be accomplished by washing the nipples daily with soap and water, followed by gentle massage with cold cream or hand lotion. If the nipples are inverted they should be brought out twice daily by gentle massage, or everted by suction. During the last 2 months of pregnancy the nipples may be prepared for lactation by simple manual expression of the colostrum. This procedure increases the ease of lactation and probably decreases the incidence of breast abscess.⁵

In individual practices, in various hospitals, in different economic levels, and in certain communities, the degree of breast-feeding will vary

tremendously. A survey in Detroit showed that breast-feeding varied from 5.6 to 59 per cent in different hospitals.⁶ It is estimated that 65 to 74 per cent of women can fully nurse their infants.⁷ The majority of mothers instinctively welcome the thought of nursing their babies. They are eager for advice and anxious to do anything within their power to preserve the well-being of their newborn infants.

Physiologically, breast-feeding is advantageous to both mother and infant. As a rule, breast milk is more digestible than any known substitute substance. An infant fed directly from the breast receives milk at a proper temperature with very little contamination. As far as the mother is concerned, nursing initiates involuntary contractions of the uterus and other smooth muscles. Contractions of the uterus will facilitate drainage of lochial discharge, reduce infection, and aid in the return of the uterus to its normal size.

There are certain disadvantages and a few distinct contraindications to breast-feeding. The activities of lactating mothers are somewhat restricted. The amount of milk obtained by breast-feeding cannot be measured with anything like the degree of accuracy of a formula poured into a graduated bottle. Breast milk cannot be changed to suit the individual baby. However, it is very probable that few infants react unfavorably to the quality of the mother's milk.⁷ Transmission of sedatives, certain cathartics, and nicotine through the breast milk should be no contraindication to nursing but rather an indication to control the maternal intake of these substances to a degree which does not influence the baby. The infant with erythroblastosis should not be fed its mother's milk because of the additional antibodies which this milk contains. However, if there is no evidence of sensitization of the Rh-negative mother to her Rh-positive infant there is no contraindication to breast-feeding. The theory that mothers with tumor ancestry should not nurse their infants for fear of transmitting

the carcinogenic substance through the milk has not been proved in human beings.

There are certain women who should not nurse their babies. Postpartum patients who have lost or who have to be separated from their infants, patients with tuberculosis, pustular skin lesions, severe heart disease, and certain mental diseases, particularly epilepsy and manic-depressive psychosis, should have their milk supply suppressed immediately. This is best accomplished by proper support of the breasts, mild purging with saline cathartics, some restriction of fluid intake, and possibly by keeping the estrogen level up with synthetic hormones. Diethylstilbestrol started immediately after delivery, 1 mg. 4 times daily for 3 days; then 1 mg. 3 times daily for 3 days; 1 mg. twice daily for 3 days, and finally 1 mg. daily for 3 to 6 days will usually help prevent breast engorgement. Larger doses are ordinarily unnecessary and may contribute to unnecessary postpartum bleeding, particularly if they are carried out for a period of several weeks' duration.

The obstetrician may contribute a great deal to breast-feeding by delivering the mother of a healthy, vigorous infant. Narcotized, traumatized, anoxemic babies do not nurse well. Immediate aspiration of mucus and amniotic fluid from the respiratory tract of the newborn infant should be accomplished without trauma. The procedure of swabbing out the mouth with a rough gauze sponge wrapped around the obstetrician's finger is a practice which may leave the infant with a sore and infected mouth.

The caloric needs of the newborn baby vary immensely. The baby should be permitted to suckle as soon as the mother has fully reacted. Until the breasts become filled with milk the infant should be permitted to take both breasts for 2 to 6 minutes. Hospital practices of arbitrarily feeding infants from alternate breasts on a 4-hour schedule are based upon the convenience and habits of the nursing staff rather than upon the needs of the baby or the comforts of the mother. More frequent and shorter periods

of nursing result in better lactation and healthier babies. Prolonged nursing causes unnecessary trauma of the nipples and tiring of the infant.⁷ When the baby can no longer obtain milk from the breast, additional nursing efforts result in the swallowing of air which is followed by discomfort and crying. Frequent emptying of the breasts prevents overdistention and stimulates a more abundant supply of milk. If the infant's early demands are not great enough to empty the breasts, they should be pumped or expressed after feeding until the infant's needs and the mother's supply balance. There are tremendous individual variations in the demands of babies and in the maternal milk supply. If the mother is permitted to feed her baby whenever she feels that the infant is hungry, she will have an opportunity to establish a more reasonable nursing interval with a better reflex expelling mechanism governing the outpour of milk than is possible under arbitrary time arrangements.^{5, 9}

Hospital maternity service can contribute to breast-feeding in a number of ways. During the first 4 or 5 days in the hospital visitors should be limited to immediate members of the family. Mothers who are not subjected to a daily parade of visitors have a more abundant milk supply. This was very well demonstrated by Darner and Hunter¹⁰ when it became necessary to prohibit all visitors except husbands from the maternity floor during an encephalitis epidemic. Before leaving the protective confines of the hospital every mother should know as much as possible about her baby, and she should have learned to assume the responsibility of the care of her infant.¹¹ With an early understanding of her infant's reactions she will have less trouble making the transition from hospital to home, a period when her supply of milk frequently begins to wane.^{8, 12, 13} The practice of measuring the progress of an infant by his daily weight chart has led to overfeeding of and to many misunderstandings about infants. If the mother's milk supply is not adequate, certainly the infant should receive additional food from a bottle,

but the habit of providing a formula bottle whether the infant needs it or not soon does away with the supply of breast milk and starts the baby off on a fattening process which may or may not contribute to its health.

There are a few bedside points which may contribute to better breast-feeding. The breasts of the mother lying flat in bed tend to roll off either side of the chest giving rise to undue congestion of the lower outer quadrants. Breasts will fill more uniformly and empty more completely if the mother wears a nursing brassiere in bed as well as while up. The breasts should never be bound tightly against the chest wall. The nipples should be cleansed before and after each nursing. A satisfactory method is the use of aqueous zephiran 1:2000 followed by sterile water. This preparation is less irritating than soap, less dangerous than boric acid, and more antiseptic than either of the other 2 preparations. Cleansing the milk from the nipples immediately after nursing and applying a sterile cellophane or gauze flat will prevent infection. Some physicians prefer the use of plastic nipple covers, known as "plasti-shields."

The hazards of tracheal aspiration are greater if the infant is fed while lying flat on its back. Either the head of the bed should be elevated or the mother should sit up in bed to nurse her baby. In feeding her infant the mother should never pull her gown up from below to permit access to the breasts. It should open in front so that the infant is not exposed to any contamination from soiling of the lower part of the gown. In the average hospital perhaps the cleanest part of the mother's bed is the upper surface of the top sheet. It is a good practice to pull back the spread and blanket which are frequently contaminated by visitors and attendants and place the infant on the top of the sheet covering the mother's body.

The mother should not sit or lie in an uncomfortable position watching her infant nurse. Constant observation of the infant at the breast is a common cause of postpartum headache.

Certain mothers experience some difficulty in nursing their babies due to abnormalities of the nipples. Inverted nipples should be brought out before the baby is put to breast, either by massage or by negative pressure. Cracks and fissures of the nipples have a tendency to occur more frequently in patients with fair skin and in mothers of babies who are vigorous nursers. Prenatal preparation of the nipples and shorter periods of nursing in which the base as well as the tip of the nipple is taken into the infant's mouth help prevent breaks in the skin surface of the nipple. Walzer¹⁴ recently suggested changing the nursing position of the infant in the patient who has sore nipples. This permits traction on a portion of the nipple which is not sore.

Should the nipple become inflamed, it can usually be corrected by the application of a sulfonamide ointment in a water-soluble base. The ointment is removed before each nursing and if necessary a nipple shield, breast pump, or manual expression is used until healing is complete. Silver nitrate applications, tannic acid preparations, bismuth and castor oil, and other substances recommended for cracked nipples have not proved as satisfactory as sulfonamide ointment. No contact dermatitis from the local use of sulfonamides has been noted.

Proper prenatal preparation and self-demand nursing of both breasts will usually eliminate engorgement. If, under these circumstances, the breasts become over-engorged, 3 important procedures in therapy are:

1. Adequate support of the breasts.
2. Manual or mechanical emptying of the breasts after each nursing period.
3. Analgesia by mild sedation such as codeine and acetylsalicylic acid.

Breast infections should be prevented, but when they occur it is imperative that an early diagnosis be made in order to preserve lactation and prevent breast deformity. It is a clinical impression that breast infections are more prevalent in winter and spring months when a high percentage of patients show evidences of acute

upper respiratory infections. Whether there is a direct association between the bacteria in these patients with acute mastitis and sore throats or whether mastitis results from lower resistance resulting from the respiratory infection has not been correlated.

The majority of infections start from abrasions, lacerations, or fissures of the nipple and spread upward into the duct system. This means edema of the ducts with obstruction of the flow of the milk in the area involved. The usual etiologic organisms are staphylococci or streptococci. If the infection is not cleared up immediately, it will spread beyond the confines of the glandular portion of the breast into the interstitial fibromuscular and areola tissues. When duct drainage is no longer possible, abscess formation occurs in the interstitial portions of the breast.

Mastitis can be localized by treating infections of the nipple immediately with sulfonamide ointment, by keeping the ducts open with warm, moist applications of normal saline, and by negative pressure as often as necessary to relieve congestion. The breasts should be supported. Sulfadiazine given by mouth has not been as satisfactory as local applications. Intramuscular penicillin has proved to be effective treatment for patients who show early, acute mastitis. When abscesses form, they should be localized by hot applications and incised radially from the nipple, i.e., parallel to the duct system.

In summary, the embryologic development and the hormonal influences on the human breast have been reviewed. The importance of early prenatal support and prelactational preparation of the breasts has been stressed. The high per-

centage of patients who fail to nurse their infants has been presented as a problem for obstetricians, pediatricians, nurses, and hospital administrators to solve in a more physiologic and rational manner. The tremendous wastage of valuable breast milk through failure to utilize natural resources deserves careful consideration. A majority of the complications of breast-feeding can be eliminated by careful attention to medical and nursing details. For mother and infant there is no perfect substitute for breast-feeding, a process through which a suitable mixture in proper proportions is delivered directly to the baby's mouth from a safe reservoir, at body temperature, under relatively aseptic circumstances, and with a minimum of time and preparation.

BIBLIOGRAPHY

1. AREY, L. B.: *Developmental Anatomy*. Philadelphia: Saunders, 1940.
2. HAMBLIN, E. C.: *Endocrinology of Woman*. Springfield, Ill.: Thomas, 1945.
3. CHEATLE, G. L., AND CUTLER, M.: *Tumors of the Breast*. Philadelphia: Lippincott, 1934.
4. SILVA, Y.: Personal communication.
5. WALLER, H. K.: *Lancet*, 1943, **1**, 69 and 437.
6. BYINGTON, G. M., AND HARMON, G. E.: *Detroit Med. News*, 1944, **35**, 8.
7. MACY, I. G., WILLIAMS, H. H., PRATT, J. P., AND HAMIL, B. M.: *Am. J. Dis. Child.*, 1945, **70**, 135.
8. GRULEE, C. G.: *Proc. Interst. Postgrad. M. A. North America* (1943), 1944, pp. 135-7.
9. SIMSARIAN, F. P., AND McLENDON, P. A.: *J. Pediat.*, 1942, **20**, 93.
10. DARNER, C. B., AND HUNTER, G. W.: *Am. J. Obst. & Gynec.*, 1943, **45**, 117.
11. McLENDON, P. A., AND PARKS, J.: *Mod. Hosp.*, 1945, **65**, 46.
12. DAVIES, V., AND PRATT, J. P.: *Am. J. Nursing*, 1946, **46**, 242.
13. TYSON, R. M.: *Proc. First Am. Cong. Obst. & Gynec.*, 1939, p. 689.
14. WALZER, H. C.: Personal communication

UPPER EXTREMITY PAIN*

The Orthopedist's Point of View

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THE upper extremity is subject to a wide variety of affections that can produce pain. Generally, the painful area presents local evidence of disease. Infections, neoplasms, traumata and degenerative processes all produce changes in the tissues of the arm, each in accordance with its own pattern. Each tissue that is involved, skin, subcutaneous tissue, muscle, tendon, ligament, joint, bone, nerve and blood vessel, has its own characteristics. Obviously proper consideration of all of the diseases cannot be made in the limited time available to us now. Suffice it to say that local pain serves to direct attention to the local lesion, and the evaluation of the type of disease and the structure involved must depend on the diagnostic acumen of the examiner.

Far more elusive are those painful conditions of the upper extremity which are not associated with pathologic changes at the site of the discomfort. Such a situation does not necessarily warrant the conclusion that there is no organic explanation for the discomfort. Pain can be referred to that area from lesions that are quite remote, and we are confronted with the problem of looking for the lesion at some distant location.

The sensory nerves are recognized as the usual medium for the transmission of referred pains. Our knowledge of the sensory nervous system is, therefore, of value to us in finding the source of trouble. From the cortical sensory area in the brain to the terminal end organs, the course of

this system is fairly well charted. The proximal portion is well protected by the bony armor of the skull and the vertebrae. Emerging from this protected area the nerve fibers enter the brachial plexus and then the peripheral nerves. These areas are relatively unprotected. The common orthopedic conditions that can irritate the nerve structures are found at the articulations between the armor masses and in the relatively unprotected distal nerves.

The articulations referred to exist at the junction of the vertebrae with the head and with each other. There is a nerve-compressing ailment that occurs at the junction of the head and spine, platybasia. This is a rare condition, and although it gives pain referred to the shoulder, has associated phenomena such as the "onion-peel" sensory disturbances of the face that help distinguish it. At the articulation between the vertebrae the nerve root courses outward from the spinal canal through the intervertebral foramen, a partially protected conduit that has a bony roof and floor. The posterior wall, however, is made up of the joint pedicles covered by the articular capsule, while the front wall has the elastic intervertebral disc. These structures are subject to injury from external forces, and fractures and dislocations may occur which may disturb the size and shape of the foramen. Furthermore, in normal function the size of the foramen changes as flexion and extension take place. Since the joints are behind the foramen, extension enlarges and flexion reduces the lumen. In addition to this, inflammatory conditions of the joints produce intra-articular swellings and thickening of the capsular structures which pro-

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trude into the foramen to reduce the clearance necessary for the nerve. Degenerative changes with bony overgrowth that projects into this tube as well as damage to the intervertebral disc supply factors that are space-reducing. These pathologic processes are not rare ones. Indeed, they constitute the type of change that most of us are subject to. Rheumatoid arthritis, sprains, fractures and degenerative arthritis produce a large percentage of the ailments to which human flesh is heir. Consequently, on a theoretical basis we might expect a high incidence of pathology in this area, and, practically, we find that this is true.

Pressure on the sensory nerve in this area produces radiations which have common characteristics. In the first place, they are distributed in fairly uniform manner to specific dermatomes. These are definitely not the same as the area of the distribution found in peripheral nerve irritations. Furthermore, the symptoms are usually not associated with objective changes in the area of the pain. Occasionally, in the more severe cases, we find evidences of sympathetic nerve involvement as manifested by the Horner syndrome, areas of localized sweating, and even pilomotor manifestations. When there is more complete obliteration of the root canal, we find loss of the reflexes and motor changes.

The phenomena just mentioned are predicated on the irritation of sensory nerves. The manifestations we meet cannot be explained completely on this basis. Some of the areas in which one finds subjective pain are supplied by nerves that are so-called motor nerves. This holds true particularly with regard to the precordial pains in the areas of the pectoralis major and the pectoralis minor muscles. It has, however, been found that pressure on a motor nerve can produce at the end of that nerve a vague type of nonlocalizable discomfort called a protopathic pain. Pressure on motor fibers that course through the cervical foramina explains a number of the precordial pains that we encounter.

We thus have three types of nerve structures participating in the radiation: sensory, motor, and sympathetic nerves. We may assume that direct pressure on these structures causes the radiation. But this does not cover all of the pain-stimulating conditions that we meet. Many are familiar with the anomalous referred pain that takes place in hip disease. As so many of us have learned, involvement of the hip is frequently associated with radiations down the course of the obturator nerve, a structure which is not contiguous to the hip, so that direct pressure cannot be placed on the nerve. We call this type of radiation "referred pain." We believe that the affected joint tissues are innervated by branches of the obturator nerve. The painful stimuli that are produced by the diseased joint tissues are interpreted by our brain cells as coming from the end organs of the obturator sensory nerves.

In other words, referred pains can be produced by pathology in deep joints without the medium of direct pressure on the nerve bundle. I had the opportunity to test this out on a patient who was awake while a dissection of the brachial plexus was being performed under local anesthesia. The nerve roots were retracted to permit the exposure of the joint and the pedicles. A needle was used to irritate these tissues without touching the visible nerve structures. The patient reported that these stimuli produced pain down the arm. The areas affected corresponded to the course of the nerve roots that ran through the adjacent foramina. Semmes has recently reported similar observations on irritations of the disc. We must, therefore, accept the principle that inflammation of the para-articular structures can produce radiating pain without the intervention of compression of the nerve cables.

To summarize, I have sought to establish that painful areas may result from remote lesions through the medium of the nervous system and that disease in and about deep joints may cause referred pain without direct pressure on the nerve cables.

CLINICAL SYNDROMES

In actual practice, we find the joints of the cervical spine susceptible to many of the ailments that we find in joints elsewhere. Patients present themselves with one of a variety of complaints which have as their common denominator brachialgia. There may have been a long automobile drive with the driver sitting in a slumped position, with his head carried forward; or the patient may be a student or stenographer sitting for many hours with the head hanging over his work. The older person may tell of a gradual loss of height, with fixed sagging of the head and neck. At times an individual is met who has been suffering from chronic arthritis, polyarticular in character, with involvement of first one joint and then another, and who, without any particular injury or strain, begins to complain of pain in the neck with brachialgia. Others will give a history of a sudden strain. This may take the form of a sharp twist of the neck when the trunk is fixed, or a sudden bounce in a jolting automobile. Parachute jumpers may attribute this pain to the jar associated with the sudden opening of the parachute, while they are falling in an awkward position. Several patients have told of getting a sudden kink while drying their backs after bathing. Finally, there are the falling accidents, such as catapulting out of an automobile onto the head or shoulder, or falling down a flight of stairs. Most of these people complain of pain in the neck, shoulder and arm. As a rule, the symptoms are unilateral. Pain may radiate down to the fingers. Some have only arm pains without much neckache. Others tell of pain radiating down the back or chest lateral to the spine. Some of these patients have thought they had heart trouble because they had pain in the precordium, or broken ribs because there was pain in the thoracic cage. Some women with this condition seek medical advice for a supposed cancer of the breast because of the pains referred to the anterior chest wall. At times the complaints include pain in the upper neck with radiations behind the ear along the

course of the great occipital nerve. The pains may be described as an ache, a sharp stabbing pain, a numbness, or a burning feeling. They are frequently exaggerated by changes in position and are often particularly bad when the patient tries to read in bed with his head supported on one arm. Weather changes and fatigue may be aggravating factors.

The physical examination should include a careful orthopedic and neurologic survey of the parts involved. The cervical spine is usually found flexed at the cervicothoracic angle, that is, the head is carried forward. At times the head is deviated laterally. The muscles of the neck are spastic, particularly the trapezii and the semispinalis capitis. Movements of the neck are restricted in some or in all directions. The loss of motion may involve the entire cervical spine. Palpation of the neck reveals a number of sensitive areas. As a rule the spinous processes are not remarkable for their sensitiveness, but pressure over the articular processes reveals points of tenderness over some, while the others are free from pain. The neurologic examination is generally negative objectively, but at times one may find pilomotor disturbances, segmental areas of sweating, and even diminished or lost reflexes. It is, however, of great importance to map the distribution of the subjective sensory disturbances and to determine which dermatomes are involved. The roentgenographic findings vary with the nature of the lesion. Fractures of the spine and dislocations are readily visible. The strains and sprains in younger people do not show up roentgenographically. On the other hand, in older people one may find articular lipping to substantiate the diagnosis of arthritis. One must also look for cervical ribs and other congenital malformations such as enlarged transverse processes. It must be borne in mind that the presence of bony irregularities on the film does not necessarily mean that the patient is suffering from these changes. Such bone changes are frequently seen without any clinical symptoms. This same observation may be made with

regard to disappearance of the pulse when the arm is elevated. Many people present this phenomenon without suffering any pains in the arms.

Before leaving this subject, let me stress that this syndrome is not one of rare occurrence, say of the order of frequency indicated by the case reports of herniated cervical discs. It occurs frequently, and the alert physician, particularly the orthopedist, is likely to meet each week a number of patients suffering with ailments in this area.

Beyond the nerve roots we find the brachial plexus subject to involvements that produce brachialgia. A cervical rib produces its irritation distal to the roots and does not involve those nerves which branch off in the first part of the plexus. Pressure on the subclavian vessels almost always occurs if the rib is causing trouble and this may lead to most of the symptoms in the arm and hand. Of course the presence of the rib, clinically and roentgenologically, is necessary to establish this diagnosis.

Spasm of the scalenus anticus has been reported as responsible for brachialgia. A syndrome called the costoclavicular syndrome has been described by Falconer and Wedell, in which compression of the vessels and nerves takes place between the clavicle and the first rib when the shoulder girdle is pulled backward. In both of these conditions, the pressure must be in the

peripheral portion of the plexus and must involve the vessels.

We now come to the shoulder, which is the site for a number of pathologic conditions. Fortunately, the shoulder is a relatively exposed joint and can be more satisfactorily examined. Swelling, localized calcific masses, local tenderness, and limitations of motion all help us determine the nature of the local involvement. The radiations that emanate from the shoulder usually follow the course of the circumflex nerve and are generally limited to the upper arm. Mr. Henry O. Kendall* tells me that he has observed a radiation down the arm resulting from the striking of the humeral head against the coracoid. This condition should lend itself to recognition by the disappearance of the pain when the shoulders are rolled back.

Distal to the shoulder the pain-producing ailments fall into the group mentioned in the beginning of this discussion and need not be taken up at this time.

Most of the time allotted has been devoted to a discussion of the production of upper extremity pain by the cervical spine, because this has constituted one of the least satisfactorily recognized groups of lesions and also because I believe it is a common source of trouble.

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COEXISTENCE OF DIABETES INSIPIDUS AND DIABETES MELLITUS

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THE coexistence of diabetes insipidus and diabetes mellitus is extremely rare. Greene and Gibson¹ on reviewing the literature in 1939 found only 20 cases. Since then 6 additional cases²⁻⁷ have been reported to my knowledge. In some of these the diagnosis of diabetes insipidus was not established according to the present standards; in others, the existence of diabetes mellitus was to be questioned. It is felt that the following case report represents a patient having both diseases.

REPORT OF CASE

A white girl was first taken to her family physician at the age of 5 years because of a voracious appetite, almost constant thirst, voiding at frequent intervals during the day, and "bed wetting." When her urine was found to contain sugar, a diagnosis of diabetes mellitus was made. The condition was controlled by diet without the use of insulin. The family history was noncontributory except that the maternal grandfather had diabetes mellitus.

She was admitted to the Children's Hospital, Washington, D. C., when 6 years of age for control of the diabetes because she had not been following the prescribed diet. At that time the physical examination was normal. The fasting blood sugar was 275 mg. per cent. The Wassermann and Kahn tests of the blood were negative. The diabetes was controlled by 25 units of regular insulin daily when she was discharged from the hospital.

She was admitted to the Washington Sanitarium, Takoma Park, Maryland when 10 years of age with a working diagnosis of diabetes mellitus and malnutrition. The laboratory data showed 24-hour-urine volumes of 1,200 to 3,050 c.c. She was not having enuresis. When she was discharged from the hospital the diabetes was controlled by 30 units of regular insulin daily.

When 14 years of age she returned to the same hospital for diabetic control. The 24-hour-urine volumes varied between 2,700 and 6,200 c.c. Polyuria and enuresis were present when she was discharged from the hospital, al-

though the diabetes mellitus was controlled by 30 units of regular insulin daily. About this time she was beginning to have some difficulty with her vision. This was progressive and finally forced her to discontinue going to school 2 years later.

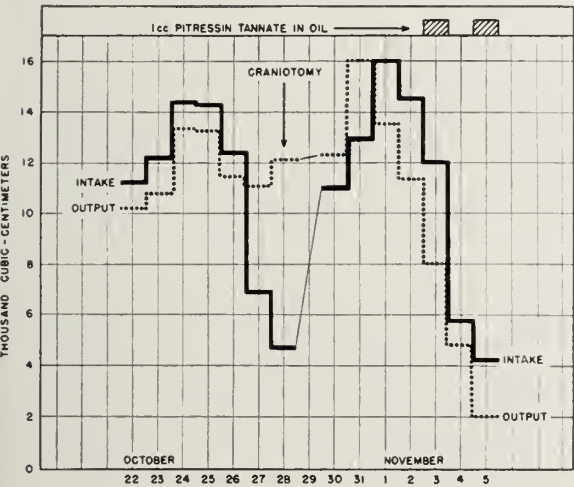
With the diabetes mellitus adequately controlled by insulin and diet she urinated about once every hour during the day and about 5 times per night. She was admitted to the Suburban Hospital, Bethesda, Maryland at 18 years of age for observation of this condition. When 1 c.c. of pitressin tannate in oil was given intramuscularly every other day the polyuria and frequency were adequately controlled. It was noted that the 24-hour volume of urine was 3,650 c.c. on this medication. No record was made at that time of the volume without pitressin therapy. Other observations made at that time were that the patient (a) appeared much younger than her chronologic age, (b) complained of some blurring of vision, and (c) was beginning to have a normal menstrual cycle. She was seen in neurologic consultation, and a clinical diagnosis of brain tumor, causing a bilateral primary optic atrophy and diabetes insipidus was made. Visual field studies showed bilateral concentric contraction but no central scotoma. The vision was 20/500 bilaterally. A roentgenogram of the sella turcica was normal and roentgenograms for bone age development were normal.

She was admitted to the Suburban Hospital where a right frontal craniotomy was done on October 29, 1947 by Dr. John P. Gallagher. At that time the patient was 20 years of age. The postoperative diagnosis was adhesive arachnoiditis of the optic chiasm. The operative findings were as follows: "There were 12-15 adhesions traversing the space between the right carotid artery and the superior surface of the optic chiasm. The chiasm itself was not impinged upon by any gross lesion as far as one could observe. An instrument was passed beneath, above, and on the right side of the optic chiasm and no evidence of gross impingement from these directions was noted. There was no evidence of aneurysmal dilatation of the internal carotid artery on the right side. The pituitary stalk was intact. The diaphragm of the sella turcica was flat. All adhesions about the chiasm were

separated by blunt dissection. The optic nerve on the right side was slack, pale, white, and considerably narrower than usual. The optic chiasm also showed signs of advanced atrophy."

The fluid intake and output record before and after the craniotomy is shown in chart 1.

CHART 1
Fluid Intake and Output



A ventriculogram was done about 9 months after the craniotomy to rule out the possibility of a tumor lying within the third ventricle. This study did not show any space-occupying lesion, but it did show an area of air-filling in the vicinity of the median eminence suggestive of atrophy of the supraoptico-hypophyseal tracts.

At about that time, because of the soreness of the buttocks from the frequent injections of pitressin tannate in oil, posterior pituitary powder was applied to the nasal mucous membrane. This mode of application required the use of about 50 mg. every 4 hours during the day and a double application at bedtime to control the polyuria. If, by chance, the material got into the bronchial tree, the patient developed an asthmatic-like condition. An attempt was made to apply posterior pituitary powder sublingually, but the patient did not feel that there was any consistent effect on the polyuria by this method and discontinued it. Then the application of the powder to the vaginal mucous membrane was tried with favorable results, and that is the method of administration now being used. She has applied by insufflation approximately 25 to 40 mg. of posterior pituitary powder to the vaginal mucous membrane about 3 times daily which completely controls the polyuria. She resorts to the use of the pitressin tannate in oil only during menstrual periods.

The age, height and weight relationships of this patient from 5 years to 20 years of age were just within the lower limits of normal range as compared with standard tables.⁸

A urinary concentration test without pituitary medication showed a maximum specific gravity of 1.007 (urine negative for reducing substances). The same test following administration of 1 c.c. (20 pressor units) of aqueous pitressin intramuscularly showed a maximum specific gravity of 1.015. The phenolsulfonphthalein test showed a maximum excretion of 78 per cent in 2 hours of pitressin tannate (1 c.c. in oil given 24 hours previously) and 94.6 per cent in 2 hours without the medication. The 17-keto-steroid determination, performed in the laboratory of Dr. Benton B. Westfall, National Cancer Institute, was 5.1 mg. per 24-hour specimen of urine (normal 3 to 10 mg.). The glucose tolerance test was as follows:

Specimen	Blood sugar	Urine sugar	Acetone	Diabetic acid
Fasting	89 mg. %	Negative		
	50 Gm. glucose given orally			
30 min.	202 mg. %	2 plus	Negative	Negative
60 min.	288 mg. %	4 plus	Negative	Negative
120 min.	290 mg. %	4 plus	Negative	Negative

The blood chlorides were 500 mg. per cent, and the basal metabolic rate was zero per cent at that time.

Physical examination in July, 1948, gave a height of 61 inches and a weight of 100 pounds. She appeared to be about 6 years younger than her chronologic age, of average mentality, pleasant disposition, coöperative, and able to do procedures within the limits of her visual capacity. Ophthalmoscopic findings were pearly white, saucer-shaped discs with well-defined margins bilaterally. No abnormality of the retinal vessels or periphery was noted. The visual fields were concentrically contracted bilaterally, but no central scotoma was noted. The visual acuity was 20/500 in each eye. The physical examination was otherwise within normal limits.

DISCUSSION

In reviewing the record of this patient it appears probable that diabetes mellitus developed at the age of 5 years and that it represented the typical type of pancreatic diabetes with an accompanying decreased rate of growth commonly seen in such children.

The onset of the diabetes insipidus was first suggested, in reviewing the record, in 1941 (at 14 years of age) when the daily 24-hour urinary volume was usually 4,000 to 5,000 c.c. and on 1 occasion 6,200 c.c. The diabetes mellitus, at that time, was fairly well controlled and could hardly

account for the large volume of urine. Mitchell and Nelson⁹ give the range of 24-hour-urine volumes for this age as 800 to 1,400 c.c. Certainly the output of this patient exceeded the average.

The onset of the visual difficulties in any marked degree occurred at 14 years of age. It is probable, in retrospect, that the patient had some type of subclinical meningeal disease at that time which involved the optic chiasm and affected the supraoptico-hypophyseal tracts causing atrophy of the posterior portion of the pituitary gland, and bilateral primary optic atrophy. Primary optic atrophy in uncomplicated diabetes insipidus has been reported by Bousfield.¹⁰ In view of the fact that both diseases occurred at about the same time it is logical to suspect the same etiology for the 2 conditions. This thought is further supported by the findings at the time of the craniotomy. However, it is well known that primary optic atrophy may accompany diabetes mellitus. Waite and Beethan¹¹ found optic atrophy in 0.6 per cent of 2,002 diabetics (mellitus) and in 0.4 per cent of 457 nondiabetic control subjects having other diseases. They listed optic atrophy among the miscellaneous abnormalities of the ocular fundus which have no direct relationship to the diabetes. Von Noorden¹² states that simple primary optic atrophy occurred in 4 per cent of 477 diabetic (mellitus) patients. Simple primary optic atrophy should not be considered as a purely diabetic affection. Wolfram¹³ has reported 4 cases of diabetes mellitus and simple optic atrophy in which malnutrition might have been a factor. This patient was stated to be suffering from malnutrition on 1 occasion.

SUMMARY

The coexistence of diabetes mellitus and diabetes insipidus in a 20-year-old white woman has been followed over practically her entire lifetime and has been confirmed by special tests. The diabetes mellitus is believed to be of the pancreatic type and is entirely controlled by insulin. The diabetes insipidus is believed to be of a postinfectious type and is adequately controlled by posterior pituitary substance. The primary optic atrophy may represent a complication of the diabetes mellitus, the diabetes insipidus, or malnutrition. The simultaneous occurrence of the 2 diseases in the same patient seems to be entirely fortuitous.

BIBLIOGRAPHY

1. GREENE, J. A., AND GIBSON, R. B.: *J. Lab. & Clin. Med.* 1939, **24**, 455.
2. RUTLEDGE, D. I., AND RYNEARSON, E. H.: *Proc. Staff Meet., Mayo Clin.*, 1939, **14**, 441.
3. GRAY, P. A., AND MOFFAT, W. M.: *Endocrinology*, 1940, **27**, 430.
4. TALBOT, J. H., COOMBS, F. S., CONSOLAZIO, W. V., AND PECORA, L. J.: *Arch. Int. Med.*, 1940, **66**, 607.
5. ALINO, L. M.: *Rev. clín. españ.*, 1941, **2**, 31.
6. MOURIQUAND, G., DAUVERGNE, M., AND MONNET, P.: *Lyon méd.*, 1942, **168**, 438.
7. VILLAVARDE, M.: *Vida nueva*, 1944, **54**, 42.
8. DUNCAN, G. G., editor: *Diseases of Metabolism*, 2nd ed. Philadelphia: Saunders, 1947, pp. 992-3.
9. NELSON, W. E., editor: *Textbook of Pediatrics* (Mitchell-Nelson), 4th ed. Philadelphia: Saunders, 1946, p. 939.
10. BOUSFIELD, S.: *St. Barth. Hosp. Rep., Lond.*, 1901, **36**, 235.
11. WAITE, J. H., AND BEETHAN, W. P.: *New England J. Med.*, 1935, **212**, 367 and 429.
12. VON NOORDEN, C.: *Die zuckerkrankheit und ihre behandlung*. Berlin: Hirschwald, 1939, p. 307.
13. WOLFRAM, D. J.: *Proc. Staff Meet., Mayo Clin.*, 1938, **13**, 715.

GIANT-CELL TUMOR OF THE THYROID GLAND

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GIANT-CELL carcinoma, sometimes called carcinosarcoma or fibrosarcoma, usually occurs in females over 50 years of age. It is a rapidly growing tumor and is believed to arise from a previous long-standing adenoma.

These giant-cell carcinomas are extremely malignant. Although they are highly anaplastic it is believed to be practically impossible to destroy the giant cells with radiation without destroying the normal tissue.¹ Recently compiled statistics reveal that 0.7 per cent of 220 cases of malignant tumors of the thyroid gland are carcinoma-sarcomas.² The average duration of life of a patient with giant-cell carcinoma is less than 1 year. These tumors invade locally, are widespread, and frequently metastasize to the lungs. The 5-year survival rate of 231 collected cases of carcinomas of the thyroid following surgery and radiation therapy shows the giant-cell variety to be 17 per cent.³

Clute and Warren⁴ report giant-cell carcinomas as noncurable and very highly malignant. Six examples are reported by them, all of which were in females. The most characteristic histologic picture is that of a tremendous number of tumor giant cells, extremely variable in size and shape and often containing multiple mitoses. Among the tumor giant cells may be numerous fat spindle cells, some of which closely resemble fibroblasts. These tumors are usually extremely vascular, and there may be much necrosis. Even when detected at the earliest possible moment they are generally already extensive, and their rapidity of growth is extremely striking. Their invasive powers are unusually marked, and practically all of the thyroid tissue is rapidly destroyed and the adjoining structures invaded.

The reports from the Lahey Clinic⁵ described the bizarre microscopic appearance of the giant-

cell carcinoma. They make note of the irregular tumor giant cells with huge, lobulated, often vacuolated nuclei, and multiple nuclei, irregular mitoses being mixed indiscriminately with smaller clusters of fairly well-defined epithelial cells as well as some stromal fibroblasts.

In a review of this subject Smith⁶ described 18 cases of fibrosarcoma, which like other thyroid tumors he considers to be fundamentally epithelial. These malignancies are apparently identical with giant-cell carcinomas. This review revealed the average age to be 61.2 years, with an average postoperative duration of 2.4 months in 16 of the 18 cases with 100 per cent mortality in 1 year. The history was usually one of a long continued symptomless goiter, with a small nodular tumor that after months or years suddenly began to increase in size and ran a rapid course terminating 6 to 7 months later in death.

The rarity of this tumor, as well as the inevitably fatal termination is so short a period of time, prompted the report of this case.

REPORT OF CASE

H. W., a 52-year-old white female, was hospitalized October 1, 1948 with a history of a swelling in her neck since 16 years of age. This swelling had not enlarged nor given complaints until July 1948, 36 years later, at which time it suddenly began to increase in size. This gave some vague complaints, all of which subsided. One month later she complained of hoarseness. Her doctor treated her with the sulfonamides and penicillin, and her complaints again subsided. In September 1948 she complained of epigastric pains associated with vomiting, which were relieved by morphine. On the first of October 1948 she was hospitalized for treatment.

A physical examination upon admission revealed a well-developed, well-nourished white female with some respiratory distress. She had a symmetrically enlarged mass in her neck in the region of the thyroid gland. This mass extended substernally with some fixation on the left without cervical adenopathy. A small papillary growth was seen on the left hard palate. Suggestive râles

were heard in the lung fields bilaterally. The heart was negative. Her blood pressure was 110/70, the pulse rate 100, and the temperature 101°F.

X-ray films of the chest revealed round, sharply outlined areas of increased density scattered throughout both lungs. The heart was within normal limits. An intravenous pyelogram showed no evidence of tumor. A basal metabolic rate was minus 40. Urine examinations were not remarkable. Blood chemistry studies showed a hemoglobin of 11.5 grams, hematocrit of 34.5 volumes per cent, and a sedimentation rate of 41 mm. per hour, corrected. A blood cholesterol was 226 mg. per cent. The white blood cell count was 8,400.

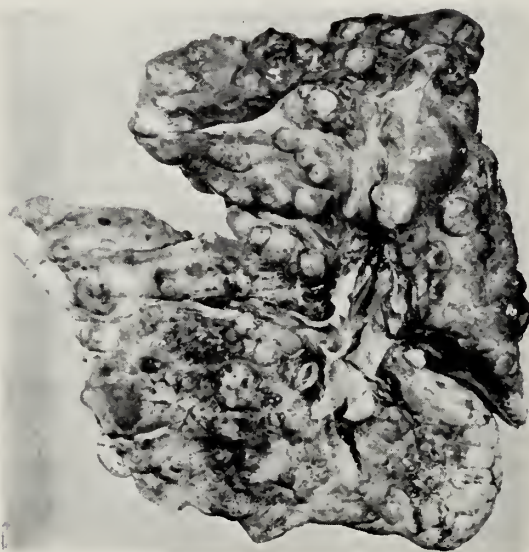


FIG. 1. Metastatic tumor nodules in lung.

The patient underwent surgical exploration of the thyroid mass, at which time a biopsy was taken. The gross pathologic report of the tissue showed a specimen consisting of several irregular pieces of thyroid tissue, the total weight of which was 64 grams. Cut section of the thyroid was mottled, yellowish, and salmon-colored. In some areas the tissue was hemorrhagic. The microscopic examination showed a malignant tumor predominated by a profusion of large giant cells of the epulis type. In most places the malignant cells in the stroma had the appearance of sarcoma; elsewhere the tissue resembled carcinoma. Areas of necrosis and calcification were in evidence.

The patient received a tracheotomy and was put on supportive therapy. Following this she went progressively downhill and died on her twenty-second hospital day, 5 months after the development of symptoms.

The autopsy findings revealed a mass in the thyroid region which was 10 cm. in diameter, hard, immovable,

and invading the surrounding structures. The lungs were studded with metastatic nodules varying in size from 1 to 2.5 cm. in diameter (fig. 1). The heart contained a metastatic nodule measuring 1.5 cm. in diameter attached to the right auricular wall (fig. 2). The trachea contained a metastatic lesion rimming the lumen.



FIG. 2. Metastatic tumor nodule in the right auricular wall of heart.

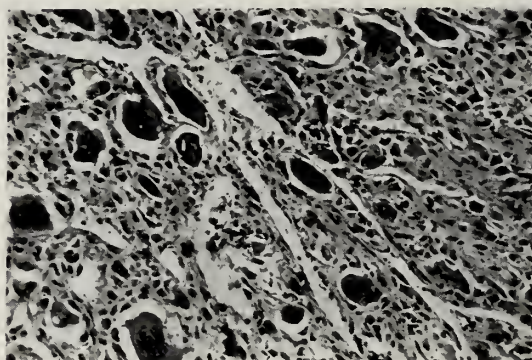


FIG. 3. Section of the giant-cell carcinoma under high power showing the irregular tumor giant cells.

The microscopic sections of the tumor showed irregular tumor giant cells with multiple, huge, lobulated, often vacuolated nuclei. Irregular mitoses were mixed indiscriminately with smaller clusters of fairly well-defined epithelial cells and stromal fibroblasts. Numerous areas of necrosis were observed throughout the section (fig. 3).

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PATRICK MANSON AND THE EXOTIC DISEASES

EDWARD PODOLSKY, M.D.

Brooklyn, New York

DR. Patrick Manson had been living in China for quite a few years and had attained a favorable reputation among the Chinese as a skilled man of medicine. One day a Chinese mandarin entered his room and very rudely and insultingly spat on the floor. "My indignation," says Manson, "evaporated on seeing that the sputum was tinged with blood." So, seizing some with a forceps, he immediately placed it under the microscope, and there he recognized the eggs of a strange and hitherto undiscovered worm. It turned out to be the lung fluke, *Paragonimus*, the extraordinary life history of which he afterwards helped to elucidate. He later assembled the facts and learned that this fluke hatched in water into a motile creature which first entered a fresh water snail and then a fresh water crab in order to get once more into the lungs of man.

This was one of the many discoveries of Patrick Manson in a new field of medical knowledge, that of tropical diseases. It all began in 1875, when at the age of 31 Dr. Manson came to China for the second time, now bringing with him a wife, a compound microscope, and many new ideas.

He did not let many days pass after his arrival before he set to work to look for the filaria (threadworms that got into the blood of man and caused all sorts of disabilities and malformations) in the blood of his Chinese patients in his rather primitive hospital, which was nothing more than a rough two-story Chinese house in Amoy. As assistants he had two Chinese. He soon noted that the more industrious one was the one who worked in the hospital wards late at night and it was this one that was always successful in bringing him slides containing the microscopic parasites. It occurred to Dr. Manson that this might be due to the fact that the

minute worm entered the blood stream at night only. After 6 weeks of intensive study on 1 Chinese patient (named Huito), he discovered that this was the case indeed. The worms were found to be present in the blood only at night. During the hours of daylight, they disappeared completely. This was a most puzzling situation. Why was this so? Later it was discovered that when the habits of the patients were reversed, those of his parasite followed suit. In other words, it was found that by sleeping in the daytime and remaining awake at night, the filariae could be found in swarms in the blood during the day but could not be found at night. On making minute observations upon the filariae removed from the blood, Manson had little difficulty in concluding from their structure that they were the immature states of much larger parent worms, which, he reasoned, must inhabit some tissues of the human body.

This was proven correct in December, 1876, when Dr. Bancroft, in Brisbane, Australia, discovered the adult worm, a long filamentous hair-like creature almost 2 inches in length which inhabited the lymphatic tissues as male and female. Now Manson's blood filaria was a much smaller worm, only $\frac{1}{10}$ of an inch in length. It was encased in a loose sheath in which it struggled aimlessly, tied down as it were, like a man in a sack. The very young worm had no digestive organs. It occurred to Dr. Manson that nature had provided the immature worm with a sheath for some special purpose, for when the blood was cooled outside the body, the minute filaria was seen to rupture through its sheath and swim about in the blood with great rapidity like an active eel.

Dr. Manson reasoned that the immature worms could not possibly develop to any further

stage in the blood in which they were being swept along like so many inanimate objects, for did they do so in such countless millions, then the human host himself would be "eaten of worms." Therefore some agent must be necessary for the transference of the filaria from one human being to another and for the development of the parasite outside the human body. It must be a winged insect, something that fed on human blood and something that fed only at night. A mosquito could be the only answer.

The common brown mosquito of Amoy bit at nighttime only; it was very numerous in the native quarters. In August, 1877, Dr. Manson induced Huito, his filaria-infected Chinese, to sleep in a mosquito cage and to allow himself to be freely bitten by these insects. The next morning the insects were collected in separately labeled bottles, when engorged with blood, and were kept alive as long as possible. It was not possible to do so for longer than 5 days, and by dissecting them at frequent intervals with such a primitive instrument as a pen-point Manson soon realized that he had "stumbled upon an important fact with a distinct bearing upon human physiology." For he witnessed a most remarkable thing, the migration of the immature filaria, having cast its sheath in the stomach contents, through the walls of the stomach into the muscles of the wings, where it developed rapidly into a much larger worm-like creature. "I followed it up," he says, "as best as I could with the meagre appliances at my disposal, after many months of work, often following up false scents, and ultimately succeeded in tracing the filaria through the stomach wall into the abdominal cavity and then into the thoracic muscles of the mosquito. Manifestly it was on the road to a new human host." The idea that a winged insect was the disseminator of disease germs and that it was an essential link in the development of these parasites without whose agency it would cease entirely to exist was a new and startling fact in medicine.

In August, 1878, Dr. Manson's studies on the

development of the filaria and on the mosquito were published. They were received with skepticism, yet they proved to be the cornerstone of what is now known as tropical medicine.

In 1889 Dr. Manson retired to Scotland. He had amassed considerable wealth, and after 23 years in China he had acquired fame as an expert in tropical medicine. However, within a year, owing to family misfortunes and the depreciation of the Chinese dollar, he was compelled to try his luck as a consultant in London. But soon he found fresh fields for exploration. In blood specimens sent to him from various tropical countries he found no less than 4 new blood filaria in man, one of which, from West Africa, *Filaria loa*, proved to be the absolute opposite of his original *Filaria bancrofti* in that it appeared in the blood stream in the daytime only, disappearing in the hours of night. His hypothesis, founded on native tradition, that it was carried by a day-biting "mangrove fly" was proven correct nearly 24 years later.

Here in a small room at the top of the house euphoniously named the "muck room" he worked out the life history of the guinea worm in the water flea (Cyclops), made frequent observations on many other parasites, and predicted their life history in every case, almost with prophetic accuracy.

In 1892 Dr. Manson became physician to the Seaman's Hospital Society, a position which gave him ample material for study and practice in the hospital in the London docks. Here he first began to work seriously with the malaria mosquito. By means of a new stain (borax methylene blue) which he had invented himself, he was able to advance knowledge of the minute structure of this microorganism beyond any known. He watched the antics of this parasite in blood withdrawn from the body in much the same way he had observed the filaria in China almost 20 years before. From these observations he was able to make suggestive hypotheses upon the dissemination of malaria. In December, 1894, he published what is known as Manson's Malaria-

Mosquito Theory. Briefly this theory compared the life story of the filaria parasite to the supposed life history of the malaria organism, and demanded that a stage outside the human blood must be passed within the body of a special kind of mosquito found in those tropical countries in which malaria was prevalent. This was later proven right.

* * *

Of pure Scotch parentage, though descended originally, as he often jocularly remarked, from Norwegian pirates, Patrick Manson was born in humble circumstances in the ancient town of Old Meldrum, Aberdeenshire, on the third of October, 1844. His earlier years were spent in training at the gymnasium of Aberdeen city for the engineering profession. However, at the age of 16 he developed a curvature of the spine for which he had to rest for 6 months, and it was during this period that he decided to study medicine.

He did not display any particular brilliancy as a student at school nor at the university, but he was always a hard-working student. He made such progress that by the age of 20, in 1864, he had passed his final examinations. One year later he held the position of Medical Officer to the Durham Lunatic Asylum, making a series of careful dissections of the brains of the insane, and he published an article on minute changes in the blood vessels of the brain which he maintained were the cause of mental disease. In 1866 he left England for Takao on the southern shores of Formosa, where he spent the next 4 years. In 1870 he moved to Amoy, a treaty port on the mainland of China in the Bay of Hiu Tau, where he worked more or less in obscurity until 1875.

Amoy was typical of a Chinese city in those days, unsanitary, filthy, neglected, and teeming with disease. Here he was intrigued by the problem of the cause of elephantiasis and leprosy, the 2 diseases with which his name is most often associated, for it was he who discovered the

bacillus that caused leprosy at about the same time as did Jansen, the man who is credited with being the discoverer of that germ.

In 1 year he removed with complete success "a ton of elephantoid tissue," besides performing the operation of removing stones from the bladder. He was also an accomplished eye surgeon. Soon his reputation as a surgeon, and especially his knowledge of diseases of the eye, spread throughout China. In midwifery he appears to have been no less successful. In fact, he was an expert physician and surgeon in almost all the branches of the healing art. Returning to England in 1875, he busied himself in museums, medical schools and libraries, endeavoring to find out more about the diseases in which he was deeply interested, but he could find little literature and no authorities on the subject. He was a little discouraged. However, one day in the autumn of 1875 he found on the dusty shelves of the reading room of the British Museum the writings of one Timothy Lewis, a very distinguished officer of the Army Medical Service in India. In 1870 this Lewis had discovered certain worms in the blood of natives of Calcutta which he named *Filaria sanguinis-hominis*, the threadworm of the blood of man. Dr. Manson instantly seized upon the idea that these worms might be the cause of elephantiasis, as well as many other diseases he had observed in Amoy. Subsequent developments proved that he was right, and in being right he became the father of modern tropical medicine.

* * *

On April 9, 1922 Patrick Manson died full of honors and widely appreciated as the greatest authority on tropical diseases. Without Manson and without his researches, it is safe to say that the elucidation of the mystery of yellow fever would have long been delayed, and that no General Gorgas would have arisen to rid the world of yellow jack.

Manson, Ross and Laveran—these were the

(Continued on page 439)

President's Page

A.M.A. IN ATLANTIC CITY

As the Dog Days breathe hot and humid upon our necks here in Washington, it is pleasant to recall the Atlantic City meeting of the American Medical Association and the host of smaller meetings that drew more than 13,000 physicians from all parts of the country and abroad. Three hundred and fifty registered from the District of Columbia. Many of these were hardy perennials, like William Gerry Morgan† (Past President of the A.M.A.) and Oscar B. Hunter; several were recent additions to the teaching staffs in Washington, men like Jeghers, Copeland, Mousel and Blades, who had won their spurs elsewhere; some, like Overholser, Veal, Shadid and T. J. Dugan, were represented in the Scientific Exhibit; and others, like Ramsey, Conklin, Hussey and The Observer, stuck close to the Traymore Hotel for the sessions of the House of Delegates. The great majority of those in attendance went to Atlantic City in a holiday spirit alternating the fatiguing though rewarding visits to the scientific and technical exhibits with strolls along the boardwalk. The stay-at-homes missed the marvel of TV in color of surgical operations as well as the misery of sunburn *cum* food-poisoning which they can get at any resort.

Women physicians held their meetings at the Dennis Hotel where several of the Medical Society's former vice presidents were in evidence, and the Woman's Auxiliary at Haddon Hall was ably represented by Mrs. Quayle and others.

Washington would have been poorly represented in the scientific exhibits had it not been for the numerous contributions made by the Government Services. It would appear that doctors in Washington are expending their energies in so many different directions that they are not so frequently seen and heard at this greatest of medical gatherings. Perhaps it is a fact that Washingtonians are so accustomed to meetings of various sorts that they look upon the A.M.A. convention as an opportunity to get away from Washington and enjoy it without too many responsibilities. In any event, the continued multiplication of scientific meetings is making it difficult for doctors to keep up with developments in fields even closely allied with their own.

We shall see in the next few months whether the plethora of meetings can still attract the busy physician, and whether he will be able to find time, in between meetings, to prepare his own papers and exhibits. The Annual Scientific Assembly of the Medical Society of the District of Columbia will be held October 17, 18 and 19, and the Interim Session of the A.M.A. in Washington on December 6, 7 and 8. These conventions will help the doctors in Washington to make up their minds as to how much they can give and receive.

Meanwhile, as the perspiration flows, and thoughts are upon distant scenes of mountains, lakes and seashore, the blue skies and salt tang of the ocean breezes that greeted those attending the A.M.A. meeting in Atlantic City will remain pleasant memories. There is something unique about that boardwalk. When a cheery "Hello, Mr. President!" roused me from the program and I saw our Society's wheel horse C. B. Conklin and its gadfly T. E. Mattingly arm in arm, I thought that Henry Clay was overstating it when he said he'd rather be right than be President.

† Died July 7, 1949.

Walter Freeman

Editorials

WHAT PRICE SAFETY?

Within the first six hours succeeding an operation most surgical emergencies arise in hospital practice, and these emergencies are directly related to the anesthesia or the operation. There is scarcely a surgeon in active practice who cannot recall tragic instances that emphasize this statement. Very little has been done in an organized or orderly fashion to eliminate or minimize this hazard, glaring as it is.

At least fifty years ago at Columbia Hospital in this city, during the régime of Drs. J. Wesley Bovée and I. S. Stone, a recovery room was employed for the convalescence of the major operative gynecological patients and was designated the laparotomy room, or in the parlance of the hospital, the "lap." It is still an important physical and indispensable part of the hospital. That this practice has not been appropriated by all other institutions calls for some explanation. In plans for new hospitals, this innovation, if it can be so called, is incorporated, and throughout the country it is realized that the immediate postoperative care must be shared by the surgeon, the anesthetist, and the institution. Whether the unit is designated postanesthesia room, postoperative room, or the recovery room is immaterial, but perhaps the last identifying appellation is the best, and certainly a more optimistic one.

Our conception of a recovery room is one in which patients are received immediately after an operation or an anesthetic, where they remain until reaction is complete, and any emergency treatment, if necessary, has been given.

Most patients remain from two to three hours,

but in a grave complication the period is extended until the patient can receive all necessary care in his room or ward. It is in no sense a convalescent room or ward.

The failure to plan such a feature in the hospital may be due to the expense involved, for at first blush it would appear that space assigned to a recovery room would deprive the hospital of four to six beds, and consequently a loss of income. The first duty of a hospital is to the patient, and while the financial angle is not to be overlooked, it cannot be paramount. Going deeper into the question it is apparent that the additional loss in revenue or increase in expense is more than justified.

What are the advantages of a recovery room?

The patient is under immediate competent observation from the time the operation is completed until he has become fully conscious.

The room is equipped with oxygen, intravenous fluids, blood, plasma, resuscitators and medications required in an emergency, ready for instant use.

The surgeons and anesthetists are available at a moment's notice.

After reacting in the recovery room, the patient is returned to his room or ward in a quiet state and does not disturb others on the floor or in the ward. The nurses on the ward to which the patient returns have been relieved of the responsibility of caring for a reacting patient or patients, and permitted to assume other duties for at least several hours.

In many instances the services of a special nurse are not required.

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia

The only disadvantages are the loss of revenue or added expense, and perhaps the delay in returning the patient to his room, which sometimes adds to the apprehension of the family. This latter objection can be obviated by informing relatives in advance that the patient is kept under special observation in a recovery room until he has regained consciousness.

In a subsequent contribution we shall go into detail about experiences with the recovery

room, citing expenses of equipment and maintenance, including salaries, the ideal location, and the practical operation based on an experience with over 30,000 cases.

In two local hospitals, other than Columbia, where the recovery room has been adopted it is the consensus that it is a permanent and highly successful adjunct in the care of the patients. It is a small price to pay for safety.

C. S. W.

THE GROWTH OF SPECIALIZATION IN GOVERNMENTAL MEDICINE

One may certainly "view with alarm" and not "point with pride" to the multiplicity of bills thrown into the Congressional hopper proposing to expend money in astronomical figures running into the millions for the study, frequently the treatment, of specific maladies affecting mankind.

It would seem that the Government actually proposes to enter into the practice of medicine as a "specialist," notwithstanding the fact that so far, at least, its role as a general practitioner has not been determined by the passage of any of the numerous health insurance bills with which it has been concerned during the past few years.

Specialization in medicine has evolved by an orderly process through the years because of the enormous increase in the knowledge of and treatment of disease, which necessitated segmented practice by groups of especially trained physicians working among the victims of diseases affecting regional parts of the human body. Perhaps specialization has been overdone, as the pendulum seems to be swinging back in favor of the general practitioner and the just recognition of his work.

Now comes an array of proposed legislation by the Congress in furtherance of specialization by governmental agencies which, upon analysis, does not always seem to bear the earmarks of the public interest, but possesses often the implication of political maneuver.

The Congress has already established several "institutes," namely, the National Cancer In-

stitute, Heart Institute, Mental Health Institute and Dental Institute. In nearly all instances such authorization by the Congress carries the approval of establishing facilities or construction, even of hospitals, to further such studies as are contemplated.

The U. S. Public Health Service now controls these Institutes of Health, having added a plural designation to its former title of National Institute of Health. Yet the U. S. Public Health Service cannot establish an "institute" without specific act of Congress, although it is authorized to expend millions in general research, with no limitation upon the character of the diseases which may be the objects of study.

Some of the proposed institutes as set forth in the many bills presented to the Congress are: H.R. 4973 (and a dozen identical bills) to establish a National Multiple Sclerosis Institute; H.R. 5046, a National Institute for Blindness and Eye Diseases; H.R. 1935 (and others), a National Institute on Arthritis and Rheumatism; H.R. 3893, a National Epilepsy Institute; H.R. 3645, a National Cerebral Palsy Institute. Some bills, avoiding the word institute, would establish commissions, such as H.R. 3095, with 15 identical bills, which would create a Commission on Services to the Physically Handicapped; another, a National Advisory Council on Leprosy, while H.R. 790 would appropriate \$100,000,000 "to authorize and request the President to undertake to mobilize . . . in the

United States . . . an adequate number of the world's outstanding experts . . . in a supreme endeavor to discover means of curing and preventing cancer."

What is the etiologic basis for these many projects? Many such bills are introduced into the Congress because of pressure groups, usually small in numbers but strong in vocal attainment. The "hog-caller" with the strongest voice usually brings home the bacon as well as first prize. Our country once passed through an episode of prohibition due to the factors just mentioned.

Perhaps a legislator, à la Gilbert and Sullivan, has among his sisters or his cousins or his aunts some who are afflicted with arthritis, rheumatism, diabetes or what-not. If not a relative, it may be a "constituent" who is ailing and seeks relief through Congressional action in the establishment of an "institute" to study his malady. Such constituents have actually testified before hearings as to their personal woes.

Let us consider one such "institute" and its etiologic basis.

A noted and popular baseball player succumbed to multiple sclerosis, a not too common disease, but his illness and unfortunate death affected the heartstrings of millions of baseball devotees and created a sense of universal mourning, which even resulted in the production of a moving-picture film depicting his life. Multiple sclerosis is a euphonious term, easily pronounced, and denotes a malady mysterious in nature. That an idol of the baseball world should fall a victim of this disease and his fatal illness evoke country-wide sympathy is not surprising.

Congressmen are baseball enthusiasts as witnessed by the annual contest between Democrats and Republicans in the cause of charity performed upon our local diamond. The President himself tosses out the first ball to open the big league combats. However, does this comparatively infrequent disease warrant an "institute" to further its study?

One of the bills, S. 758, introduced into the 81st Congress, proposes the height of paternal-

istic care and comfort to those who may in their peregrinations have the misfortune to contract venereal disease. The Act to amend Section 314 of the Public Health Service Act may be cited as "The Venereal Disease Rapid Treatment Center Act": "Funds appropriated under subsection (a) . . . may also be used by the Service to operate and maintain facilities for the diagnosis, treatment, support, and clothing of persons afflicted with venereal diseases, including transportation and subsistence of persons afflicted with venereal diseases, and their attendants, to and from the places of treatment, or allowances in lieu thereof; diagnosis and treatment, including emergency treatment for other illnesses, of such persons through contracts with physicians and hospitals and other appropriate institutions; reasonable expenses of preparing remains, and of burial, of deceased patients; . . . recreational supplies and equipment; and repair and alteration of leased facilities."

Herein it is proposed that the Federal Government through allotments to the states shall provide food, clothing and shelter (facilities) in addition to rapid treatment to those who have fallen by the wayside while violating the moral code. Recreational supplies and equipment are provided to help pass the time away, while if the "rapid treatment" should prove unsuccessful (lines 8, 9, 10), mortician and burial expenses are to be provided!

Socialistic England has adopted a "cradle to the grave" program of medical care. In the United States shall we adopt this fatherly policy of "contact [an aviation term, but applicable] to the wake"? The word cradle might be omitted, except in cases of congenital lues not yielding to the ministrations of a rapid treatment center.

H.R. 1935 (and others, identical) would establish a National Arthritis and Rheumatism Institute. Should this institute ascertain the cause for and a cure for rheumatism and arthritis, such a result would be joyfully hailed by vast numbers of our citizens afflicted with these

maladies. Does their prevalence warrant an institute, however, devoted solely to the study of these diseases? Recent reports of private, not governmental, investigators working in the Mayo clinic and elsewhere give promise of an effective cure through the use of "Compound E," a plan of treatment discovered and developed through private initiative.

However, there seems to be a bit of consolation concerning the entrance of Government into the field of specialization, for the rosy-fingered dawn of common sense would appear to be pointing the way to a restriction of such ill-advised projects in the following stated opinions which should have our unqualified endorsement:

Senate Hearings, May 23, 1949 (J.A.M.A., June 25, 1949, page 708):

SENATOR MURRAY: We have a number of separate bills here on cerebral palsy, multiple sclerosis, rheumatism and epilepsy. They are separate bills and we held hearings on them.

SENATOR PEPPER: Leprosy, also.

SENATOR TAFT: Did you also consider a possibility of reporting out something like Title II separately, perhaps, in lieu of a lot of new institutes?

SENATOR MURRAY: Yes, to have them all in one group, and I think that those who are advocating the bills should get together and agree on some such program as that. It would make it less expensive to operate than if you had a separate institution for each one because the specialists or experts on one disease would be available for work in the other diseases. They are all men trained along the lines that would make them available for almost any kind of a study, any kind of research.

Senate Hearings, June 16, 1949:

Austin Smith, M.D., Director, Division of Therapy and Research, and Secretary of the Council on Pharmacy and Chemistry, American Medical Association, testified that the AMA has consistently supported medical research in the form of issuing grants to research workers and projects. Money from the Federal Government should be allocated through a National Science Foundation and the study sections of the U. S. Public Health Service. It would be wiser not to earmark money for any special disease.

Rollo E. Dyer, M.D., Director, National In-

stitutes of Health, U. S. Public Health Service, Federal Security Agency, testified that the most intelligent use of Federal financial assistance to research would be the flexible process of one institute having the right to expend money wherever there is a proven need. He pointed out that many diseases under study are so related that important findings with regard to one may affect several.

Even the layman is becoming interested and concerned in the efforts of the Federal Government to enter the domain of "specialists" in the practice of medicine.

The *Washington Post* of July 8, 1949, published in its editorial column under the title of "Federal Illness" the following:

"In its hearings on the National Health Insurance and Public Health bill, the House Committee on Interstate and Foreign Commerce is simultaneously considering a multitude of separate bills providing for Federal support for research, training, and public health activities pertaining to a whole list of separate diseases. The Administration bill mentions 'poliomyelitis, diabetes, arthritis and rheumatism, multiple sclerosis, cerebral palsy and epilepsy, or any other diseases.' Other bills specifically provide for leprosy, blindness and eye diseases among others. . . . The end result is that everyone is beginning to run to the Federal Government to get a share of the funds for his 'favorite' disease. This newspaper is not opposed, of course, to the prevention of disease; nor do we think that Federal funds should be shut off from medical research aimed at such prevention. But even the best of subsidies has its limits, especially since there is no more guaranty of results in Government-financed research than in private research conducted in a garret. What is insured in these projects is, indeed, something that might frustrate results, and that is a piling up of bureaucracy upon bureaucracy in the medical field."

Yes, there is hope that specialization in governmental medicine will be curbed!

J. S. W.

THE MOST IMPORTANT MEMBER OF THE MEDICAL PROFESSION

Fifty years ago when medical education was not as thorough as it is today there was a distinct need for more specialists—for doctors who devoted years to intense study of some particular organ or system of the body. In 1900 the profession was not far from the preceptor doctor who trained the student in his own office and made him a doctor when he thought the student had absorbed sufficient knowledge. Nearer to that date medical schools were formed by local doctors for their own profit and courses of one or two years usually led to a degree. About fifty years ago night schools were flourishing. These allowed the student to engage in remunerative employment in the daytime and attend lectures in the evening, when he was generally fatigued after his day's work. Only a high school education or its equivalent was required in 1900, and it was possible to commence the study of medicine at sixteen. Laboratory work was sketchy indeed, and the fundamental education of many of the professors left much to be desired. Of course, there were well educated, outstanding doctors richly endowed in mind and body by nature, but these were few compared with the other doctors of that day. Most doctors then began their careers as general practitioners, and some of them became specialists after experience had indicated to them the particular department in medicine which was best fitted to their talents and to their interest. With the passing of the years these doctors naturally became the leaders of the profession and the instructors at the medical schools, and it is due to their efforts that medical education occupies its outstanding position today.

The medical student who graduated in 1949 has had four years of high school, a degree of Bachelor of Science or Arts, and one of Doctor of Medicine. Many State Boards require him to spend two years as intern in a recognized hospital before he can take an examination to practice. If he desires to specialize, he must then spend three years more as a resident in a recognized

hospital for residents in order to take a difficult examination before a Specialty Board which can grant him a diploma certifying that he is a specialist. It follows that the young specialist is unable to make a living before he is thirty years of age. I believe that there should be a five-year interval between internship and residency, during which the doctor should do general practice in order to broaden his horizon and to insure that he has practical as well as theoretical talent. Many would become so interested in general work that they would give up the idea of specialization.

Specialists are essential and will probably never be displaced, but I predict that during the next ten years there will not be so many of them. The family doctor is on his way back, and when he arrives both the public and the medical profession will benefit. The Medical Society of the District of Columbia lists about 325 general practitioners out of a membership of about 1,600. Washington is top-heavy with specialists. Why is this so? Mr. John Q. Public is largely to be blamed. People are generally better informed today than they used to be. Newspapers and magazines print many detailed articles on medical subjects, and the lay reader acquires a little knowledge but has no medical educational background which is necessary for full understanding. "A little knowledge is a dangerous thing." When such a person becomes ill, he attempts to diagnose his ailment and goes directly to the specialist who he thinks can help him. He should, of course, consult a general practitioner, who can first decide upon the necessity for special treatment and who can direct him to the appropriate specialist, but he is too smart to do this. The following example is, of course, exaggerated but not too much so.

Assume that his ailment is headache. He has gotten the impression from his reading that most headaches are caused by sinus infection (of course, most headaches are not due to this cause), and so he engages the service of his friend

the ENT man. The sinuses are found to be clear, and then he goes in turn to the allergist, the ophthalmologist, the gastroenterologist, the neurologist, the roentgenologist, and the pathologist. The sum total of their investigations reveals that his headache was due to hypertension, and he is advised to seek a good general practitioner for advice and guidance. He has encircled Robin Hood's barn, has spent a good deal of money, complains of the high cost of medical care, and argues in favor of compulsory health insurance. The Blue Bird of Health was in his own back yard.

I am in favor of dissemination of all knowledge including medical knowledge, but I think the above illustration indicates one of its disadvantages. While we are on the subject of medical news I remark that it is a cruel mistake to print encouraging reports concerning cancer, tuberculosis, poliomyelitis, rheumatic fever, arthritis and other serious disease, because some clinic has been using a remedy which is not yet obtainable and has found improvement in some aspect of the disease. The clinic may find the remedy useless on further experimentation, but the poor victim of the disease has been boosted by false hopes, only to be tragically disappointed.

The general practitioner is immensely better prepared for his life's work than he was fifty years ago. His premedical education has made him better informed generally, and his medical education has included accounts of the experiences of the various specialists who have been his professors. He has learned laboratory routine and can interpret laboratory reports, he has observed the diagnosis and treatment of innumerable cases, and he has learned the indications for and the effects of the new antibiotics. He reads his medical journals, he attends meetings of medical societies and conventions, and some hospitals allow him to use their facilities for his patients. The attitude of many hospitals must change in favor of the general practitioner. Hospitals in the main are conducted by lay

boards who are advised by attending specialists. Rules are promulgated which restrict the activities of the general practitioner. Certain hospitals do not allow him to practice obstetrics. Any doctor who is allowed by his license to practice his profession should be able to treat any condition of which he feels himself capable in all hospitals. Individual doctors whose work is poor can be excluded from courtesy staffs. Unless the general practitioner is allowed full use of the hospitals he may be tempted to treat cases at home or in his office without the safeguards which hospitals afford. This would be detrimental to the patients' best interests.

Medical schools should make room for the general practitioner on their faculties. He can add to the education of youth and inform the youngsters concerning the advantages of general work for the doctor and the patient. Students who associate with specialists entirely are apt to believe that general practice is *passé* and has no attractions. They admire their teachers and tend to imitate them.

The trained, educated, experienced general practitioner of today is capable of diagnosing and successfully treating 85 per cent of the illnesses which befall the human race. He knows his limitations and will seek counsel about the other 15 per cent. He has the opportunity to know you and your family and your idiosyncrasies, he will be interested in you, and you cannot have a better guide, philosopher and friend.

The family doctor occupies a unique and happy position. He is a source of comfort to his patient, dispelling fear and apprehension. He is interested, cheerful and sympathetic. His patient in return is grateful. The doctor has his full confidence, his respect, and his regard. I do not know of a sweeter relationship between humans than the bond which ties the family physician to his patient. He is the most important member of the medical profession.

JAMES A. GANNON, M.D.

PROGRESS REPORTED BY DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION*

More than 31,000 persons attended the 98th Annual Session of the American Medical Association in Atlantic City, N. J., June 6-10, 1949. Over 13,000 members registered; guests, including families, residents, interns, nurses and technicians, accounted for over 14,000, while 3,660 exhibitors, dealers and distributors were in attendance. Three hundred and fifty-one physicians from the District of Columbia attended (see list of Society members who registered at end of report). Many were present at the meetings of the House of Delegates.

The new President-elect, Dr. Elmer L. Henderson, of Louisville, Ky., has a background of activity in organized medicine, beginning over 30 years ago when he was President of the Jefferson County (Ky.) Medical Society. He served in the House of Delegates 1937, was elected to the Board of Trustees 1939, and has been its Chairman since 1947. In his address to the House of Delegates, he said: "If we are to endure as a free medical profession we must stand united and present a solid front." By unanimous consent he introduced Campaign Directors Clem Whitaker and Leone Baxter, who addressed the House. The work they have so far accomplished in reaching the public with literature and in gaining the endorsement of lay organizations was given emphatic approval by the House.

PRINCIPLES OF MEDICAL ETHICS

The Judicial Council, which has for some time been laboring over a revision of the Principles of Medical Ethics, presented the revision which was adopted. Comparison with the previous Code (1940) reveals clarification of many points.† It appears in full in the *Journal of the AMA* for June 25, 1949, pp. 700-3, and will soon be available in booklet form.

PHYSICIANS FOR THE ARMED SERVICES

Upon instruction from the Medical Society of the District of Columbia, Delegate Conklin introduced the following resolution regarding the procurement of physicians for the armed forces:

"WHEREAS, The armed forces are urgently in need of physicians, and voluntary enrollment has so far failed to meet this need; therefore be it

"RESOLVED, That whenever essential requirements of the armed forces cannot be met in any other way, the Council on Emergency Medical Service be authorized to develop a method of equitable selection from among V-12 and ASTP-trained physicians and those deferred from military service to complete their medical education; that the method proposed be submitted to the House of Delegates for its approval, except in an emergency when the Board of Trustees shall act on the proposal; and, further, that the mechanism approved be submitted to the Federal Government for its consideration."

A number of other resolutions on this subject were introduced. The House adopted the District of Columbia resolution with minor changes.‡ Previously the AMA had sought to avoid a "doctor draft." The House, however, was convinced that voluntary enrollment is unlikely to meet the entire needs of the armed forces.

RETIREMENT OF THE EDITOR OF THE JOURNAL

The delegates from the District of Columbia were instructed by the Medical Society to work for the retirement of the Editor of the *Journal*, Dr. Morris Fishbein. They complied with the instruction.

On the opening day of the House the following statement was made to the House by the Chairman of the Board, Dr. Henderson:

"The Board of Trustees is aware of the criticism of the Editor coming from within and from without the profession. The Board recognizes that the public has come to believe that the Editor is spokesman of the Association. The membership undoubtedly wishes the elected officials to speak authoritatively on all matters of medical policy.

"Against the time when the Editor retires Dr. Austin Smith has for some months been in training as the Assistant Editor and the talent of the Editor will be retained for the present under the control of the Board of Trustees.

"In view of the increasing responsibility of the Editor and reorganization of the department, the Board of Trustees has decided on the following points:

1. The Editor will completely eliminate speaking on all controversial subjects both by platform and by radio. Approval of all speaking engagements will be made by the Executive Committee.

2. Elimination of all interviews, including press conferences, and statements by Dr. Fishbein except on scientific subjects.

3. Editorials on controversial subjects will be supervised by the Executive Committee.

4. Complete information as to these activities will be reported to the members of the House of Delegates.

* For minutes in full see J.A.M.A., 1949, 140, 610, 685, 787, and 879 (June 18, June 25, July 2, July 9); also Editorials in J.A.M.A., 1949, 140, 960 (July 16).

† See Editorial in J.A.M.A., 1949, 140, 960.

‡ For exact wording, see J.A.M.A., 1949, 140, 800.

5. There will be permanent elimination of the diary in Tonics and Sedatives.

6. Plans for the training of a new Editor in an orderly manner, including the retirement of the present Editor, will be formulated.

"The Board of Trustees of the American Medical Association announces that plans have been formulated for the retirement of Dr. Morris Fishbein as Editor of *The Journal of the American Medical Association* at an appropriate time. For thirty-seven years Dr. Fishbein has served the American Medical Association well and faithfully. *The Journal of the American Medical Association* is an enduring monument to his genius and devotion. His activities have extended far beyond his immediate duties as an editor, and the Board desires to pay tribute to his many accomplishments in other fields.

"The Board finds that serious dislocation would result from any sudden replacement. With this in mind a reorganization of the editorial staff is under way so that his retirement, when consummated, will not result unfavorably for ventures of the Association."

Subsequently this report was adopted by the House, which combined with it in the record laudatory remarks on Dr. Fishbein's services as editor and his accomplishments in building up the publications of the AMA. The House also adopted a resolution expressing its complete confidence in the Board of Trustees to operate the Association's business affairs.

Dr. Austin Smith, Assistant Editor, is being groomed to succeed the Editor upon his retirement.

ASSOCIATION OF MEDICAL CARE PLANS

Delegate Ramsey served on a special reference committee on "Insurance Plans and Medical Service." This committee's recommendations were all adopted by the House. One of them endorsed the proposal of the Council on Medical Service that the Association of Medical Care Plans (Blue Shield) be separated from the AMA as an independent organization.

It further recommended the adoption of a resolution introduced by Delegate L. Howard Schriver of Ohio, who is President of the Associated Medical Care Plans:

"WHEREAS, the American Medical Association has vigorously supported all bona fide forms of voluntary health insurance, and, in the words of the Council on Medical Service, has recognized its responsibility to 'promote the principle of voluntary insurance by educating the people as to their need for such coverage and by obtaining full coöperation from state and county medical organizations in the local field'; and,

WHEREAS, Associated Medical Care Plans, as the federated agency of state and local medically sponsored prepayment

plans (Blue Shield Plans), has diligently endeavored to further the progress and development of voluntary health insurance as directed by the Board of Trustees and this House; and now therefore, be it

RESOLVED that the continued functioning of Associated Medical Care Plans as an independent federated agency representing state and local Blue Shield Plans is supported by this House of Delegates; and be it

FURTHER RESOLVED that the several state and local Blue Shield Plans continue the development of an enrollment agency to act in their interest in the field of so-called 'national accounts' using their best judgment (and that of sponsoring societies) with respect to the methods, means, procedure and form of organization by which the problems related to national accounts may be solved."

The Reference Committee's endorsement of the foregoing carried the following statement: "It is the understanding of your reference committee that any insurance company that might be set up under this organization would come up in regular order and in the same manner as any other plan seeking approval of the Council on Medical Service."

SPREAD OF PREPAYMENT PLANS

The House adopted another recommendation from the same reference committee endorsing a proposal of the Council on Medical Service regarding the positive phase of the program of Whitaker and Baxter, that of enlarging the number and coverage of medical service plans. This recognizes the need for getting prepaid coverage on a voluntary basis for as many citizens as possible throughout the United States and its possessions.

LAY-SPONSORED HEALTH PLANS

In December 1946 the House of Delegates asked the Board of Trustees to prepare a set of "proper standards" for "coöperative or consumer-controlled groups when providing medical service."

On its instruction representatives appointed by the Council on Medical Service met with representatives of the Coöperative Health Federation and drew up a set of 20 principles which were transmitted to the House, as follows:

1. The plan shall be nonprofit, paying no dividends to beneficiaries or others; all surplus earnings shall be devoted either to improving the services, to making compensation of physicians and other staff members more adequate for their responsibilities and services, to purchasing facilities and equipment, to increasing the scope of benefits, or to building ade-

quate reserve funds. All income to the plan shall be devoted to services for beneficiaries.

2. The plan shall comply with the Principles of Medical Ethics of the American Medical Association, which provide that it is unprofessional for a physician to dispose of his professional attainments or services to any lay body, organization, group or individual, by whatever name called, or however organized, under terms or conditions which permit a direct profit from the fees, salary or compensation received to accrue to the lay body or individual employing him.

3. If incorporated, the plan shall be adequately financed and organized without capital stock.

4. The plan shall be operated under an autonomous administration or trust, with segregated funds, and shall be devoted exclusively to the provision of health service.

5. Promotion, sales, organization and administrative expense of the plan shall be kept at a minimum as judged by the accrediting body.

6. The quality of medical service shall be maintained at the highest possible level. All participating physicians shall be doctors of medicine duly licensed to practice medicine in any state in which the plan operates. Each physician engaged in the practice of a specialty shall be required to have adequate qualifications for that specialty. The personnel and facilities of the plan shall be adequate to insure a high quality of medical care.

7. The plan shall provide all services as set forth in the agreement with the beneficiary. When, in the opinion of the medical staff, a professional service set forth is not available because of an emergency or because of the need for highly technical procedure, or for any other reason, then such service shall be otherwise provided by the plan.

8. The plan, in its agreement entered into with the beneficiary and which shall be distributed to each beneficiary, shall state clearly the services and benefits to be provided and the conditions under which they will be provided. All exclusions, limitations, waiting periods and deductible provisions shall be clearly stated in the agreement with the beneficiary and in promotional and descriptive literature.

9. The plan shall, in its agreement with the beneficiary, state clearly the amount of dues or subscriptions to be paid. The amount of dues or subscription shall be adequate to provide for the benefits and services offered and to insure proper financing of the risks involved.

10. No promotional material shall invite attention to the professional skill, qualifications or attainments of the physicians participating in the plan.

11. Participating physicians may be compensated in any manner not contrary to the Principles of Medical Ethics of the American Medical Association relating to contract practice.

12. Any duly licensed physician in the community who wishes to participate in the plan, who meets its professional and personnel standards and who agrees to abide by its terms and the requirements of its beneficiaries shall be admitted to the plan.

13. The names of all participating physicians of the plan shall be made available to the prospective beneficiary. The

beneficiary shall, within reasonable geographic and professional limitations, have free choice among participating physicians.

14. There shall be no interference by the governing body with the medical staff in the practice of medicine. The traditional and confidential relationship of the physician and patient shall be preserved.

15. Adequate provision shall be made for effective participation of the medical staff in the deliberations of the governing body. It is recommended that the membership of the governing body include representatives of the medical profession.

16. All services rendered by the participating physician, not included in the beneficiary's contract, shall be payable by the beneficiary to the participating physician on a fee for service basis.

17. The method of operation of any hospital owned or under contract to the plan shall be in accordance with sound public policy.

18. The plans shall provide for like rates, benefits, terms and conditions for all persons in the same class.

19. Investment of reserve funds shall be made only in securities deemed prudent for such purposes.

20. Any plan desiring approval under these principles shall agree to such periodic reviews and to abide by such regulations as may be deemed necessary by an appropriate accrediting body of the American Medical Association in consultation with representatives of the sponsors of the plan.

The Reference Committee's recommendations, adopted by the House, are as follows:

"Your Reference Committee recognizes the forward step taken by the House of Delegates in its previous action asking for a set of principles relating to lay-sponsored voluntary health plans. The twenty principles suggested by the Council on Medical Service are offered to the House of Delegates by the Council in response to that request. Your Reference Committee recommends that these points be forwarded by the House of Delegates to all state and county medical societies, which societies may use them as a guide in determining the eligibility of any such plans for approval by those states or county societies. These twenty points have been tentatively initialed by the Council on Medical Service and the Coöperative Health Federation of America. It should be recognized that local areas may find it necessary to make minor modifications without changing the fundamental intent involved. Your Committee recommends that any lay-sponsored plan desiring approval by a proper accrediting body of the American Medical Association shall come bearing the endorsement of the state or county medical association involved."

The House's action affords for the first time a basis for approval of coöperatives and is a long step away from an earlier position regarding such organizations.

JOINT PLANNING COMMITTEE

The House reframed a resolution presented by Dr. Warde Allen of Baltimore, which in its adopted form calls for a conference of many groups, medical and lay, looking toward the formation of a "joint planning committee for the study and preparation of more comprehensive plans of medical care for the Nation."

It should be noted that this proposal was also an objective of the "group of 168" physicians who sent a "manifesto" to the *Journal* in early February.

HOSPITALS AND THE PRACTICE OF MEDICINE

A committee headed by Dr. Elmer Hess of Pennsylvania presented a study of the corporate practice of medicine and gave certain observations on the

* The reference for the District of Columbia is found in J.A.M.A., 1949, 140, 623.

practice of medicine by hospitals. The report was accompanied by a review of the laws of the several states on the subject.*

A condensed version was adopted by the House, which calls attention to the Principles of Medical Ethics (1940) and the method by which a physician or physicians may be cited for alleged unethical practices. It also traces the steps through which appeal may be taken.

The position is that it is illegal, with certain exceptions, and unethical for any lay corporation to practice medicine and to furnish medical services for a professional fee which shall be so divided as to furnish profit for a lay employer, either individual or institutional.

COURSEN B. CONKLIN, M.D.

HERBERT P. RAMSEY, M.D.

Delegates

LIST OF MEMBERS ATTENDING AMA CONVENTION

Following is the list of members of the Medical Society of the District of Columbia who registered for the 98th Annual Session of the American Medical Association in Atlantic City, N. J., June 6-10, 1949.

S. A. Alexander, S. Alpert, H. F. Anderson, C. G. Aronstein, J. M. Baber, G. L. Ball, W. E. Baensch, P. Bailey, G. J. P. Barger, J. M. Barker, E. B. Barnes, E. O. Barr, J. H. Bayley, S. Benjamin, B. B. Blades, A. Blajwas, R. W. Bliss, D. L. Borden, B. Blumenthal, L. S. Blumenthal, J. I. Boyd, T. Bradley, J. C. Brady, I. B. Brick, G. T. Brown, W. B. Burch, W. F. Burdick, F. G. Burke, S. Burtoff, E. A. Cafritz, R. F. Cahoon, T. Cajigas, G. W. Calver, M. L. Cannon, H. Carter, J. V. Casella, A. F. Castro, P. A. Caulfield, E. Chickering, R. M. Choisser, H. G. Clark, W. E. Clark, C. S. Coakley, E. SeV. Coale, M. C. Cobey, R. J. Coffey, R. Cohen, T. F. Collins, A. J. B. Connolly, C. B. Conklin, R. U. Cooper, M. M. Copeland, J. R. Costello, A. B. Coulter, E. H. Cushing, D. Davis, E. W. Davis, C. J. Demas, A. Dick, S. Diener, S. M. Dodek, J. F. Dominick, H. F. Dowling, T. J. Dugan, F. J. Eichenlaub, J. R. Ernst, E. R. Fenton, A. D. Fischer, F. C. Fishback, S. Fishman, J. Fogel, T. C. C. Fong, W. Freeman, L. H. French, I. P. Frohman, E. W. Fugitt, O. H. Fulcher, J. Q. Gant, G. D. Gartland, H. S. Gates, F. A. J. Ceier, C. F. Geschickter, W. T. Gill, E. A. Gillis, B. Golden, M. L. Goldman, D. S. Gorden, E. J. Gordon, L. S. Gordon, J. N. Greear, I. S. Grisoff, A. O. Hampton, V. K. Harvey, J. Hawfield, L. Heiges, W. P. Herbst, E. J. C. Hildenbrand, R. T. Holden, F. S. Horvath, J. M. Howe, W. L. Howell, O. B. Hunter, O. B. Hunter, Jr., R. Hunter and H. H. Hussey.

Also D. W. Ingham, C. Jackson, H. Jeghers, H. G. Kain, S. Katzman, M. S. Kaufman, R. E. Kelso, A. Kessler, I. Kessler, E. Kittredge, L. A. Klein, R. G. Klepser, A. B. C. Knudson, E. A. Koppel, A. F. Kreglow, J. Kreiselman, H. F. Kreuzburg, M. J. Kossow, W. Kurstin, H. J. Kurtz, D. H. Kushner, S. E. Lachman, J. S. Lawrence, D. S. Jaeger-Lee,

I. Levin, A. B. Little, P. Litvin, A. S. Lloyd, J. A. Logan, R. E. Lukes, J. A. Lyon, J. J. McCarthy, F. M. McChesney, W. McFarland, R. S. McGrath, G. F. McGinnes, R. T. McIntire, M. J. McInerney, P. A. McNally, L. S. Madden, E. P. Madigan, B. Manchester, R. N. Marganaro, W. B. Marbury, A. A. Marchetti, R. Maret, E. H. Markwood, S. O. Marietta, A. E. Marland, J. W. Martin, R. B. Mattingly, T. E. Mattingly, M. Mensh, B. Miller, C. Moore, W. G. Morgan, W. R. Morris, E. Morse, J. A. Murphy, B. L. Naiman, C. R. Naples, E. A. Nathanson, S. W. Nealon, L. Neuman, J. S. Neviaser, B. Newhouse, E. W. Nicklas, M. M. Nicholson, A. Nimetz, M. F. Ottman, W. Overholser, E. Parker, J. L. Parks, J. W. Peabody, T. J. Pekin, F. S. Pelligriani, L. T. Peterson, G. Pincock, C. Pincock, M. Protas, L. E. Putnam, E. E. Quayle, H. P. Ramsey, L. A. Rapee, H. Rappaport, R. Reynolds, J. A. Reed, J. J. Rheingold, E. C. Rice, D. C. Richtmeyer, A. L. Riddick, H. V. Rizzoli, M. J. Romansky, W. J. Romejko, M. H. Rose, A. L. Russell, A. S. Russell, R. C. Rush, A. G. Saidman, L. L. Sawyer, F. W. Schreiber, H. R. Schreiber, J. U. Schwarzman, R. L. Sexton, F. T. Sharpe, J. W. Shadid, E. R. Shepherd, E. W. Sheppard, I. Shulman, L. H. Snyder, R. Sorkin, A. J. Speer, W. H. Spicer, P. A. E. Stebbing, S. H. Steinberg, E. Steinman, W. C. Stirling, G. J. Stuart, S. J. Sugar, C. A. Swanson, R. G. Taylor, E. B. Thompson, O. E. Thompson, G. Tievsky, A. Tish, W. J. Tobin, F. H. Towner, E. B. Tuohy, V. A. Ujhely, L. C. Varden, R. J. Verbrycke, W. B. Walsh, J. O. Warfield, M. A. Weiner, S. C. Weiner, H. I. Weinstein, A. J. Welebir, F. Welebir, G. L. Weller, O. Wilkinson, R. W. Wilkinson, F. L. Williman, A. Wilson, C. H. Wolohon, W. M. Yater and H. Zehner.

THE TWENTY-FOUR HOUR TELEPHONE ANSWERING SERVICE*

J. RICHARD CONNELLY

Assistant Secretary, The Medical Society of the District of Columbia

After the remarks of Dr. D. Bruce Wylie at last year's Conference in Chicago and all the many statements which have recently been made about the medical profession's responsibility to the public, the importance of establishing a plan for emergency medical calls is a recognized challenge.

It is not my intention to philosophize on the subject as there is little room for theories in a panel discussion on emergency medical calls. The plan which we are considering is a concrete and successful means to fulfill the profession's ever-continuing pledge to provide the people with the best possible medical care and to meet the needs arising out of the complexity of our way of living. Aside from filling a great need, a medical emergency call program pays the largest possible dividends in public relations—and in professional relations too. There is no involved presentation of social philosophy nor is there room for debate. This is entirely a "doing" program—a positive answer to a specific problem. When Johnny Jones, Jr. with a temperature of 104° moans at 1:00 a.m., Mrs. Jones' first and foremost thought is getting a doctor. If medical organizations can make sure a doctor sees Johnny promptly, the public relations aspect of the program will take care of itself. It is a simple categorical syllogism.

After George Cooley's recent booklet entitled, "Planning for Emergency Medical Calls" I don't know if I can add a great deal to the subject. My topic, I presume, might well be approached from the standpoint of handling calls in a metropolitan community. It is a safe conclusion that the larger the area and the more people served, the greater and more complex the problems. Many of ours have been solved and, I might add, were solved by Mr. Theodore Wiprud, Secretary of the Medical Society of the District of Columbia, long before I was connected with the organization. But these problems are like the old story: for every night we stay awake finding an answer, some one else stays awake two nights propounding a new question.

Chart, 1 indicating the number of participants in the emergency call program, and chart 2, which is

an analysis of the emergency calls for the first four months of this year, are presented for your information. By way of explanation, I might say that the figure of 340 physicians (chart 1) represents the total number of participants out of 625 MEDICAL BUREAU subscribers. Three hundred and twenty-eight physicians of the 340 participants will accept day calls and 266 will accept night calls. As you will note in chart 2, the vast majority of calls are for general practitioners, although there have been calls in nearly every specialty. This is understandable, since neither the caller nor the operator knows if a headache is caused by tight shoes, digestive disturbances or a brain tumor. Then, too, the average emergency caller, I have observed, is a little apprehensive of a specialist's fee. Some calls of an emergency nature have not been recorded, such as directions to hospitals, messages to police and fire departments, and a few where the emergency had obviously passed.

Our telephone answering service, the MEDICAL BUREAU, operates as follows. Membership in the Medical Society is a prerequisite for subscription to BUREAU service. Participation in the emergency medical call plan is in turn limited to BUREAU subscribers. To operate such a plan successfully, it is necessary to have detailed information about physicians' office hours, hospital affiliations, etc. An office address and telephone number, which is the usual "whereabouts" data in a medical society's file would not suffice. Each BUREAU member is asked if he wishes to participate in the emergency call program; if so, will he take day or night calls, or both; will he take calls in general medicine, or a specialty; will he accept calls in his vicinity, or will he go anywhere in the metropolitan area.

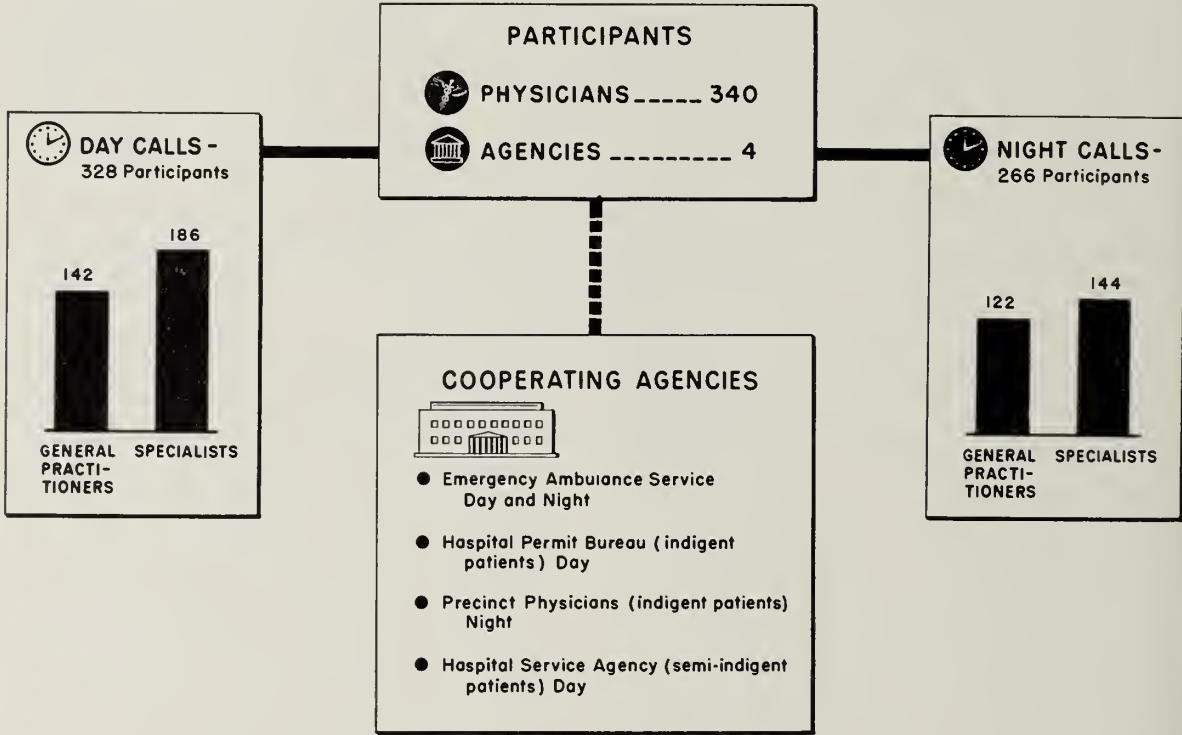
From this information we were able to set up a list for day and night calls, by specialty and by location. If a physician is not available within a given area, then one who has indicated his willingness to go out of his immediate vicinity is called. By using this adjacent-area system, a doctor seldom has to drive more than a mile or two. This method, plus an operating principle that all calls must be placed within ten minutes, and genuine emergency calls at once, has speeded up service considerably. A ten-minute period is allowed on the not-so-urgent calls in order

* Presented at the National Conference of County Medical Society Officers in Atlantic City, N. J., on June 5, 1949, as part of a panel discussion on the subject, "Is Your Society Prepared to Care for Emergency Calls?"

to give the operators an opportunity to rotate the calls efficiently among the participating physicians. Naturally some physicians are more strategically located than others and some are more willing to accept calls or are more readily available. In order to distribute the load fairly, the operator must be given a reasonable amount of time to call several physicians if necessary. A few years ago, the Medical Bureau Committee ruled that any physician who refused to take six calls without apparent good reason

Even "routine" emergency calls require special handling. Perhaps the word "routine" is used inadvisably, as no emergency call is "routine." No two are alike. Each one requires special and individual attention. All calls are considered real emergencies, although a large percentage, as we all know, are actually not too urgent. The decision, however, is not for us to make. Subsequent to setting up a basic system of operation, this factor is the key, I believe, to a successful emergency call program.

CHART 1
Participants in the Emergency Call Program



would be dropped from the emergency roster. This aids in limiting the list to those who are willing to participate actively in the program. Another means of expediting the service is securing the caller's telephone number and including it with the other information given to the physician. Frequently, on calling the patient, valuable time is saved because the physician learns more of the nature of the illness and sometimes arrangements can be made in advance to admit the patient to a hospital.

If we could limit our activities to the type of call just mentioned, our problems would be comparatively few. Such is not the case. Last year at this Conference I mentioned that the MEDICAL BUREAU telephone number is probably better known in Washington than the numbers of the police and fire departments. Our responsibility therefore is great. A few weeks ago a woman screamed over a BUREAU phone that her baby had drowned. It took several minutes for the operator to calm the woman suffi-

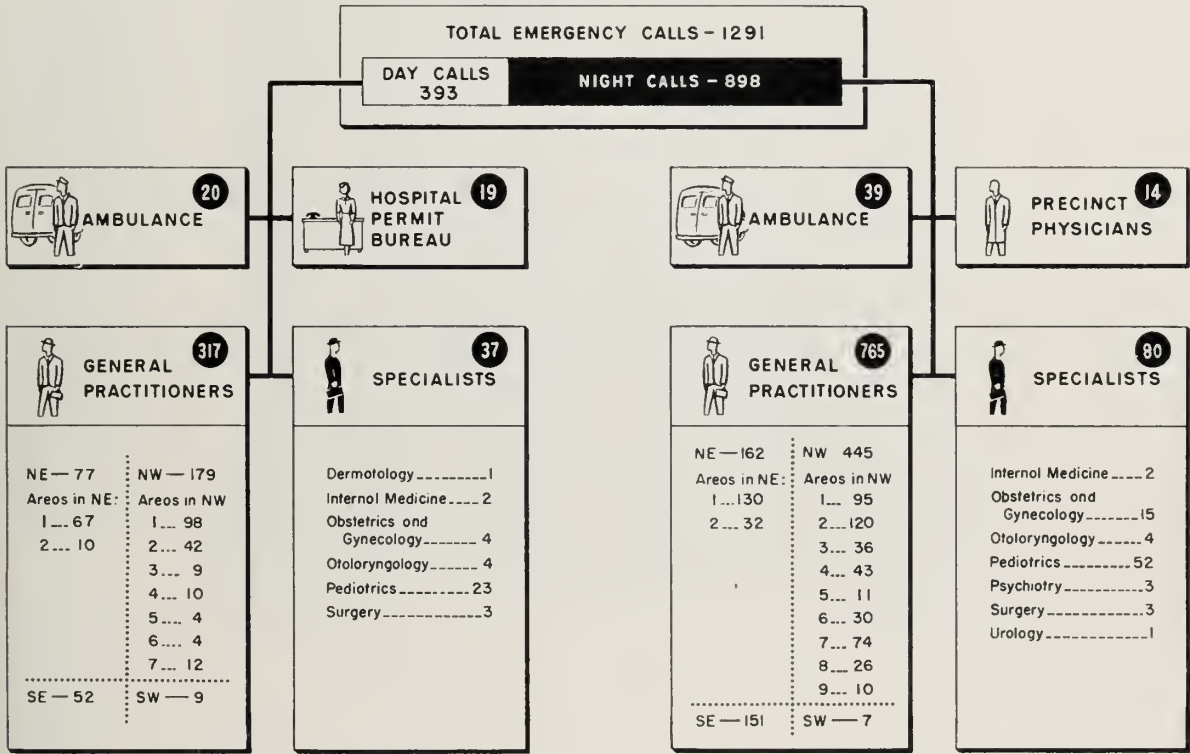
ciently to secure even her address. An ambulance, of course, was immediately dispatched. Think of what the reaction would have been if we had said, "Sorry, this isn't a call for a doctor; get the rescue squad." The BUREAU and the medical profession would have permanently alienated this woman's respect, as well as that of all of her friends.

If we say, call us when you need a doctor in an emergency, then we also must be ready to handle all types of emergency calls. This is a big undertaking

medically indigent, calls resulting from miscarriages, accidents, altercations, attempted suicides, suicides and even murders, as well as calls from alcoholics and drug addicts. As mechanical aids we have direct lines to six hospitals, Central Ambulance Service, and the Hospital Service Agency. The latter is a non-Governmental central admitting bureau for hospitals.

During the day calls from indigents are referred or placed with the Hospital Permit Bureau, which is a

CHART 2
Analysis of Emergency Calls
January-April, 1949



and requires additional planning and close coöperation with many local organizations and governmental agencies.

Although I suppose the types of calls we receive are not too different from those taken by other emergency medical services, it might be advisable to mention what ours are and how we are trying to handle them. Aside from calls taken by our physicians, which I reiterate are in the majority, we receive calls from the medically indigent and semi-

Government agency. At night an indigent patient may be asked to go directly to the municipal hospital, or the call may be relayed to a precinct physician, which is the term used for our doctors who care for the indigent. With respect to domiciliary care for the indigent, we have our troubles. The arrangement in Washington is not adequate due to insufficient appropriations. Out of a quota of 12, only 5 part-time physicians are at present on call. Although not indicated on the breakdown of emergency calls, some

requests from semi-medically indigent which are not of great urgency and involve prolonged treatment are referred to the Hospital Service Agency.

Emergency calls as a result of accidents, some coronaries, and some bleeding cases are placed with the Central Ambulance Service. Incidentally, we have an excellent working arrangement with this agency and the dispatchers seldom question our operators' decisions. In many of the bleeding cases the operator asks if transportation is available and gives directions to reach the nearest hospital emergency room. Calls resulting from miscarriages are difficult to take care of. Physicians, of course, are reluctant to accept cases of this nature and sometimes ambulances have to be sent on the more urgent ones.

Since alcoholism is generally defined as a disease, it is not a problem which we try to avoid. If there is real indication that the patient or his family is willing to coöperate, and if there is a question of nutrition or other medical complications, we ask one of our physicians to take the call. Recently we have been endeavoring to evolve a plan for closer coöperation with the Washington Committee for Education on Alcoholism, and Alcoholics Anonymous. Some requests for aid are referred to the Bureau of Mental Hygiene, which is under the District Health Department. For the alcoholic who has proven to be uncoöperative and has no desire to better himself, we have a little brown book. The names of these people are listed in our book and calls from them are screened with a great deal of caution. The same method is employed for drug addicts. To handle calls for this latter group is indeed trying, for they are experts, which I am sure physicians well know, at feigning "kidney colic."

Emergencies resulting from altercations usually need an emergency vehicle and are a matter for the police. Occasionally, arrangements are made for victims to be received in a hospital emergency room or for one of our physicians to attend them.

Attempted suicides are immediately turned over to the ambulance service, which also notifies the police. The police, by the way, are always informed by the dispatcher every time an ambulance is sent out. It is then up to the police to determine if the call should be investigated. Suicides and murders are immediately reported to the proper law-enforcement agency. The ambulance service, the police depart-

ment, and the MEDICAL BUREAU work together on many calls. Once in a while disposition of a call is held in abeyance until the police have had an opportunity to check on the validity of the request.

The multiplicity of these problems is further accentuated because the District of Columbia is not even the reputed ten-miles square. Although I have not checked our medical emergency experience with Dr. Frank G. Dickinson's medical service area map, I know that for our purposes we cross two state lines, and are involved in jurisdictional matters with five counties and numerous Federal reservations. The BUREAU, in addition to working in close coöperation with the Emergency Ambulance Service, Hospital Permit Bureau and precinct physicians, and Hospital Service Agency, coördinates its work with several different police forces, suburban ambulance services, Arlington Physicians' Exchange and hospital emergency rooms. The telephone company has always been exceedingly coöperative and discussions are in progress whereby we would take the emergency medical calls which their operators receive.

Yes, we receive calls from all types of people—the rich and poor, the newcomers and the long-established resident, the sightseers, the hypochondriacs, the depressed, the elated, and the person who has not seen a doctor for 20 years but at 3:00 a.m. wants one in a hurry. Many of the calls are from visitors to our city. Recently one of our doctors took care of 21 visiting school children who had food poisoning.

Dr. Schmidt's program in Erie County, Penna., is indeed enviable since there is a physician on duty at all times who personally receives the telephone calls. This, in my opinion, is the ultimate in an emergency medical call program. We, however, must rely on lay people. Competence of personnel, therefore, cannot be stressed enough. The service is fundamentally a personal one and depends on the operator's quick, sound judgment and her ability to evaluate a call.

There is still another type of service which is usually not considered part of an emergency call program, but which, in my opinion, definitely is in this category and pays the same high dividends in public relations. This is the handling of urgent calls from patients of physicians who subscribe to the

(Continued on page 440)

Washington Physicians of Yesterday



L. HENRY L. E. JOHNSON, M.D.

A scholarly and cultured gentleman, an able gynecologist, the internationally known Dr. Henry L. E. Johnson was an ornament to the medical profession of the District of Columbia.

Dr. Johnson was born in Washington, D. C., November 11, 1858. He was a nephew of Charles Goodyear, the rubber inventor. After graduating as M.D. from Columbian (George Washington) University in 1882 he practiced gynecology in Washington for the remainder of his life until his sudden death, December 21, 1915. He married Eugenie Reel Taylor, June 19, 1901.

From 1889 to 1906 he was on the faculty of George Washington University as Professor of Gynecology. Among the many Washington hospitals where he held staff appointments were Providence, Emergency, Woman's Clinic, Saint Elizabeths and Columbia. He was a contributor to periodical medical literature. The prominence which he attained was attested by his being memorialized in "Who's Who in America."

Outstanding in his activities were his membership and official service in a large number of medical and other societies and conventions. He became a member of the Medical Association of the District of Columbia in 1882, and its President 1901-02; and of the Medical Society of the District in 1883, serving on its Board of Examiners and other

(Continued on page 440)

A SCIENCE WRITER LOOKS AT MEDICINE*

STEVEN M. SPENCER

Associate Editor, The Saturday Evening Post

The private practice of medicine is much more medicine and much less private than it was ten or fifteen years ago. The doctor, striving to familiarize himself with and to evaluate the parade of new drugs and technics, finds an eager public looking over his shoulder—and sometimes breathing down the back of his neck. Etiology, diagnosis and therapy no longer form a mystic trinity of knowledge to which only the medical profession has access and which the patient must accept on faith. The private language of the consultation room, with its quiet references to tachycardia, neoplasms and lues, can no longer be used with impunity in the presence of patients. They know too much. And they want to know a lot more. Gone are the days when a practitioner could keep the details of diagnosis to himself and dismiss Mrs. Brown with a reassuring word to the effect that “it’s nothing serious—and if it is come back on Friday and we’ll try something else.” Mrs. Brown will want to know the name of the germ that bit her. She will also ask if the prescription contains a sulfa, which upset her digestion last time she took it, or penicillin, which upset her budget.

However much you as physicians may occasionally be annoyed by the sound of a little medical knowledge rattling around in a patient’s skull, I think you will agree that the public as a whole has a legitimate interest in your problems and progress. I believe this interest can be a healthy situation not only for the patient but for the doctor and his profession as well. People who fully understand and appreciate what the great American medical profession has done and is continuing to do are less likely to accept a compulsory health insurance scheme or any other socialized medicine package wrapped in Washington and tied with yards of red tape.

Much of the public’s information about medicine is obtained through the press. If that information is sound the public reactions on medical matters are more apt to be sound than otherwise. And I am sure the press and the doctors can work together to bring about and maintain this desirable situation. I would not have you infer that the doctors and the

reporters always see eye to eye on the details and that the task of presenting medical news to the public is therefore a simple one, performed by men and women whistling while they work and greeted, when finished, by the unanimous applause of editors, physicians and a hundred million readers. Such is not quite the case. There is still room for discussion, and that, I take it, is one reason I am here.

We might stake out this area of discussion with such questions as these: (1) How much medical information does the layman want? (2) How much should he have? (3) How can medical reporting and medical public relations complement each other? (4) What part can the physician play in seeing that the public obtains sound medical information?

As a layman who spends a great deal of his time looking over medicine’s shoulder I wish to offer a few observations which may help us to answer these questions. The answers will not be final, but perhaps they will provide a working pattern of value to both of us.

I am sure that our objectives, at least, are in complete accord. Both the medical profession and the science writers want to improve the health of the American people—or of people all over the world, for that matter. But all of us know that medicine is not something people take instinctively, as they take food or water. It is a commodity on which they must first be sold. Selling is largely a matter of telling. That, I believe, is where you physicians and we writers and editors can work together. For it seems logical that the more people know about what doctors can do to help them, the more readily will they come to doctors for help, and the more readily will they rally to the doctor’s point of view in controversies over medical economics.

Although most people take medicine itself only when they or their physicians feel it is needed, information about medicine can be ingested, without discomfort, at almost any time. For the human machine has ever been a fascinating subject. So too have been the sundry disorders affecting it and the measures science is developing to correct them. These topics are of interest not only to the woman who likes to talk about her operation, but to anyone intelligent enough to appreciate the miracle of life, the “wis-

* Reprinted from the *Journal of the Omaha Mid-West Clinical Society*, 1949, 10, 33.

dom of the body," to borrow Cannon's beautiful phrase, and the power of science.

There is a tendency to regard medical news as a fairly recent feature of the lay press. It is true that the special writer on science subjects is a development of the past twenty years or so, but a popular interest in medicine has always existed, even though the doctors and editors may have underestimated it in the past. One of the first newspapers printed in Europe carried in 1494 an account of the outbreak of syphilis in Naples following the return of Columbus and his men from the New World. From time to time the press has reported other events in the history of medicine. Pasteur's inoculations against rabies aroused tremendous enthusiasm in the 1880's and were widely reported in the newspapers of Europe and America. The *New York Herald* raised funds to send four children to Paris to receive the prophylactic treatments, and papers in many parts of Europe joined in the movement to provide money for the new Pasteur Institute.

Once a few writers began to interpret medical developments in simple terms and to combine the human interest and scientific aspects, the demand for this type of information greatly increased. Today the roster of the National Association of Science Writers lists 67 active and 39 associate members, and many of them devote a major part of their time to medical subjects. Every new development that comes over the medical horizon is greeted with a fresh spurt of printer's ink. The sulfa drugs were one of the big stories of the century. Penicillin, the discovery and application of which were filled with drama, made an even greater impact on the people's imagination.

The publication of medical articles in newspapers and magazines is not a matter of editorial whim. An editor retains his job partly on the basis of how well he can plan menus that appeal to his readers. He tries to give them what they want, within the limits of his own ideas of good taste and with an awareness of his responsibility to provide editorial leadership. Fortunately he can obtain helpful clues from such thermometers and windvanes as readership surveys.

I can speak with detailed knowledge only of our own survey, but results of others are comparable. Every other week an organization carefully polls a selected sample of homes all over the United States to determine how the current issue of the *Saturday Evening Post* was received. Interviewer and inter-

viewee sit down and thumb through the magazine, and the reader is asked which articles he or she read clear through. For purposes of analysis, the non-fiction is classified in six or seven categories—health and hygiene, peoples and places, war and peace, the United States government, applications of science (other than medicine), et cetera. The survey reveals that the medical articles, health and hygiene, consistently rank at or near the top in reader interest. In 1946 they led the whole list. In 1947 they were tied for third place, and all surveys to date this year show them once more in top position.

While this analysis applies to the content of one magazine, other periodicals have also found their medical features enjoy a high "Hooper rating." One reason is that the subject appeals to both sexes. Articles on football, politics, business and atomic energy will poll more men readers than women, and the reverse will be true of pieces on Hollywood, home-making or children. But both men and women are keenly interested in new discoveries about heart disease, cancer, ulcer, deafness, backache.

There is another reason for the popularity of these features. Most medical news is good news. It has been said that the good and the peaceful make dull reading. But in this day when so much of the news is bad, good news is doubly welcome. And medicine, in my opinion, is not dull at any time. Even when an article does not announce a brand new treatment but simply presents a summary of the most up-to-date knowledge on the cause and treatment of any disease, or reports a promising development along the research front, it gets a good reading. For the reassurance which comes from a fuller understanding of a condition affecting the reader or a member of his family is itself ample justification for publishing the information.

A case in point was the article, "I Have a Scar on My Heart," a personal experience story by a Detroit advertising man, W. A. P. John, which the *Post* printed last winter. It did not announce a sensational new therapy. It was just a well written account of how the writer had come through a coronary attack, how he had taken a philosophic view of the situation, how he had slowed down his pace, how, in brief, he was following his doctor's orders and getting along fine.

The response to this article was overwhelming. Mr. John received nearly 500 letters within a month

after publication, virtually all of them commendatory and many expressing gratitude for some individual help or encouragement the reader had derived. Several wives thanked Mr. John for having dramatized the dangers of overdoing, and said their husbands had at last begun to heed the warning, even though up to that time they had completely disregarded the same advice from their own doctors. It is a fact well known among editors that readers do identify themselves with individuals about whom they read. That is the reason we like to use case histories in our articles, and it is the reason personal experience stories have been so effective in carrying the message of hope and encouragement to those waging their own personal battles against cancer, deafness and a variety of physical handicaps.

This, I maintain, is one kind of medical information that is helpful to the patient. If it makes the doctor's job any easier it may be considered helpful to him, too.

Last January the *Post* published an article written by Milton Silverman on the modern treatment of epilepsy. The drugs described were dilantin for grand mal, and tridione for petit mal. Both were well known to physicians, but the response to the article, in terms of inquiries, indicated that they were not as well known to epilepsy patients as one might have supposed. Some 1,000 letters were received by the physicians mentioned in the article and by the author. Many who had given up hope turned again to doctors who were able to achieve a remarkable improvement in their condition. This sort of evidence suggests that people must be continually reminded that modern medicine can alleviate or cure conditions once considered hopeless. Granted that many who read these published reminders cannot, for one reason or another, be helped, but this is no reason for us to withhold the story. If, through reports of new treatments for a particular condition, only one life is saved, only one child put on the road to health, the story will have been worth the telling.

Education of the public in the value of early diagnosis of cancer has now reached the point where the demand for examinations exceeds the facilities for conducting them. Dr. Elise L'Esperance, Director of the Strang Cancer Prevention Clinic in New York, has stated that there is a waiting list of 6,000 in that area alone, and that a comparable situation exists in

Philadelphia, Pittsburgh, Chicago and other cities where cancer detection centers are operated.

Now a layman who is interested in medical details often expects more information from his doctor than the latter may feel he has time to supply. Here again the press can perhaps be of help to both the physicians and the patients. One of the complaints we hear most frequently is that "The doctors don't tell us anything. They're in such a big hurry they don't bother to explain what it's all about." The doctor is a busy man. The demands on his time are exhausting. But as a result of not knowing the whole story, the patient often carries an extra burden of anxiety. To cite an example, letters are still coming in asking for additional information on glaucoma, as a result of an article published on that subject last March. One woman said her husband and several of his brothers and sisters had glaucoma and she wanted to know about the hereditary aspects. Her husband's doctor was "competent," she explained, "but very busy and definitely not talkative." An elderly farmer in Florida wrote that he was going blind from cataracts but didn't know any competent surgeons in his locality. An acquaintance had committed suicide because of his blindness and this man said he himself would gladly welcome death if his vision was not soon restored. Others wanted to know whether the eye had to come out in glaucoma. Dozens in remote districts asked how they could get in touch with good eye surgeons. Their letters were turned over to the National Society for the Prevention of Blindness, which furnished names of qualified ophthalmologists in the various parts of the country.

For many readers magazine articles answer questions which have long bothered them about the general nature of their ailments. Specific details about a patient's own case obviously can be supplied only by his doctor. But we believe that with your help and coöperation we can provide, through the medium of the press, a type of background information that in the long run will save you an endless amount of time and your patients an endless amount of worry.

It is admitted that in some situations, notably cancer cases known to be hopelessly incurable, the doctor may decide that silence or a little white lie is better than the grim, black truth. Even here I wonder if frankness is not often a better policy. The *Reader's Digest* recently carried a thoughtful

little editorial on this point by a Cleveland newspaper editor, Carlton K. Matson, who had just discovered that he had cancer. He felt that "'whispering campaigns' about cases of cancer—friendly and considerate as they may be intended—make the hard fact of cancer doubly hard." He spoke of a devoted husband and wife in his acquaintance who through the last six months of her agony "kept a desolate silence between them about her illness, secretly asking, each about the other: 'Does she know?' 'Does he know?'" And he called this "tragic nonsense." (Mr. Matson died a few months after he wrote the editorial.)

Aside from the cancer problem, which is a difficult one, is it not true that in the majority of instances the patient could be told about the physiology of his illness and the principles governing its treatment? Is not the patient who knows what it's all about and what his doctor is trying to do for him likely to be more coöperative?

The layman's lament has many verses, and they are doubtless as familiar to your ears as to mine. One or two seem so definitely a part of the broad problem of medical public relations that I should like to touch on them briefly at this point. One has to do with the high cost of diagnostic tests. People realize that X-rays, metabolism tests, blood studies, are necessary. But when the whole business has to be duplicated every time another doctor enters the case, the patient begins to wonder if somebody isn't being unnecessarily rough on his pocketbook.

And I don't believe the public has ever been entirely satisfied with the way the medical fee system operates. The principle of charging the patient on the basis of his ability to pay, or on the basis of what the doctor thinks is his ability to pay, does give rise to complaints about inequitable charges; and to that extent it plays into the hands of proponents of compulsory health insurance. I understand that the Colorado State Medical Society, after a public opinion study, disclosed dissatisfaction with certain aspects of the fee system, recommended the formulation of average fee schedules. The Society does not intend to regulate the maximum or minimum fee that any physician should charge, but believes that the public should know what a reasonable and average charge is for uncomplicated cases in each community. This is an action which seems to me to be in the interest of better medical public relations. If it proves

successful and is taken up by other state societies it should do much to answer a type of criticism all of us hear rather frequently.

After all, what really bothers many people is the financial uncertainty of illness. Families put off medical attention because they are afraid not of what the doctor will do to their bodies but of what he will do to their bank accounts. Charity won't take care of those who don't want to accept charity. And that, I am sure, includes millions of self-respecting wage earners and people of average salary. But if they could know ahead of time approximately what an operation or a course of treatments would cost, and if these estimates were based on a realistic appraisal of the family's situation in each case, they could juggle their finances around to meet the expense.

It is more and more to the advantage of the medical profession today to meet the public half way on these matters, for it is the public to which the doctors must look for an increasing share of support for medical education and research. As taxpayers providing government grants and as voluntary contributors to a growing list of special campaigns, the people want to be kept informed on medical affairs and they want to be assured that the doctors examine both sides of medical economics questions. If the American medical profession is to have an electorate favorably disposed toward the physicians' views on compulsory health insurance, for example, that electorate must be kept sold on the American medical profession.

I am no one-man Gallup poll, but I would guess that at the present moment the majority of the people is sold on American medicine. And reports of the difficulties being experienced in putting the British health insurance scheme into operation aren't likely to unsell the Americans on their own system very fast. Furthermore, the stanzas of the layman's lament are frequently interspersed with songs of praise from men and women who want us to write stories about their own favorite doctors, who are always "the most wonderful doctors in the world." I am reminded of the mother of a boy who for years had been invalided with a severe and resistant sinus infection. The illness had run the family heavily into debt. The mother was overjoyed when she finally was put in touch with physicians who were able to clear up the condition, and at little or no cost to the family. Her son was "reborn," she wrote, and could

now run and play with the other youngsters. Of the doctors, she said: "The world should hear more about such men as these, who give freely of their time and themselves, without thought of remuneration . . . men who have brought a miracle into our lives and into the lives of countless others."

Even though such letters may sound a bit sentimental and overenthusiastic to the physician, I cannot help but feel that they must be considered a sincere plea for us to tell again and again the good news of medicine. And I am sure that your professional public relations will benefit if the story of American medicine is kept constantly before the public. Nor can it be told in vague generalities. It must deal rather with vagotomies, with the new drugs against infection, with the heroic surgical measures against cancer, with better ways to treat polio, with more howl-proof methods of immunizing babies.

Moreover, the story of American medicine is living, contemporary history. As such it must concern itself with living men and women. Medical contributions are not made by disembodied spirits, at least not in civilized societies. They are made by individuals and teams of individuals—research workers in their laboratories, surgeons in their operating rooms, general practitioners and specialists in their offices and at the bedside. And the light of the whole group will shine but dimly, so far as the public eye is concerned, if the light of each member of the group is hidden under his own private bushel of anonymity. The history of medicine would be dull reading indeed if it contained no mention of the names and personalities of men like Harvey, Jenner, Beaumont, Pasteur, Osler, Cannon, Cushing, Fleming.

Yet as reporters of current medical history we often stub our toes against the doctor's tradition, that bushel hiding his light and labeled "Don't quote me!" To be sure, in the twenty years I have been writing about medical activities I have seen the profession's attitude toward reporters change from definite coolness to warm and friendly coöperation. But the doctor's reticence at seeing his name in the public print still places obstacles in our path. It is part of the reason many physicians wish to censor every article written about their work or that of their junior associates. To assure scientific accuracy a magazine editor may ask a doctor to review a medical article before publication. But it strikes the editor as

curious that frequently the medical critic, instead of questioning statements of fact, will assume the English teacher's role and make changes lying strictly within the field of editorial judgment, including the deleting of his name here and there.

Our argument for using names is simply that we believe the public has a right to know whose work is being described and whose opinions are reflected in the text of the article. To adopt a policy of not quoting authorities would open the way for unreliable reports on medicine by irresponsible publications—and there are a few. In addition, we feel the story of medicine's advance is the story of people as well as of facts.

At this point it may interest you to hear something about how science writers perform their operation. The technic varies somewhat with the publication and the individual, but every conscientious writer goes to considerable length to obtain all the facts, negative as well as favorable. In reporting a new development or a newsworthy situation or issue he does not confine himself to one man's word but may talk with fifteen or twenty in an effort to arrive at a balanced appraisal. This may take him to Boston, New York, Philadelphia, Detroit, Omaha, Rochester and Minneapolis for material on one article alone. In addition to interviewing doctors and attending medical meetings, the writer may review two or three dozen articles in the technical literature and thumb through several books. The whole task, from the first scribbled note to the finished and accepted manuscript, may consume five or six weeks or more, and after that may come minor revisions and the reading and correcting of the final proof. Medical articles handled by our own publication represent an editorial expenditure in time and money averaging about 20 per cent more than the average for articles in all other categories.

Because it is recognized that illustrations attract the reader and help tell the story, a great deal of energy is also directed toward obtaining good photographs. And the photographer is often tangled to the point of frustration in the coils of medical protocol. He may make a long trip to take a doctor's picture, only to find the doctor has changed his mind for one reason or another. If at long last he is allowed to set up his camera and lights, the physician may permit only the back of his head to be photographed, or he will request that his name be left out of the captions.

It's a case, to paraphrase Mr. Whittier, of "Shoot if you must this old gray head, but please omit my name," he said."

Now the reasons for this behavior are not hard to find, even though the science writers do not always consider them valid. The difficulty arises, as we have said, out of a tradition of medical modesty, a feeling that it is unethical for a doctor's name or face to appear in newspapers or popular magazines. The tradition apparently is based on the theory that if it were declared ethical to blow one's own horn, the quacks would blow loudest, attract most of the business and ruin the public's health. The theory is all right, but the fact of the matter is that the quacks disregard all rules against hornblowing and do pretty well for themselves. I hold no brief for self-advertising, but I think it should be clearly differentiated from bona fide medical news. For if it is agreed that accurate articles on medical progress are useful, then writers should be able to obtain information from doctors without fear of subjecting the latter to censure by their colleagues.

As science writers and editors we feel there is no reason why we and the doctors cannot coöperate in an atmosphere of mutual respect and confidence. We have been and can continue to be good friends and allies of the medical profession. Speaking now for the *Post*, I can say that it has supported the doctors on every major problem they have faced in the last ten years. It opposed socialized medicine and it is still against it. It has carried articles exposing anti-vivisection as a dangerous racket—as have other magazines—even at the risk of serious publication losses. We are *for* the American medical profession.

Recognizing the importance of full coöperation between physicians and the press, the National Association of Science Writers recently discussed plans for threshing out with representatives of the medical profession a workable policy on medical news which would satisfy both sides. In the meantime we have noted with interest that a Code of Coöperation already has been adopted by the Colorado State Medical Society and the press and radio of that state.

The Code sets up a system of official spokesmen for each county society—usually the president, secretary and publicity chairman. These men and women, as well as spokesmen for the hospitals, are to make themselves available to the press and may be quoted

CALENDAR OF MEETINGS

July 7	Committee on Industrial Medicine
July 8	Medical Bureau Committee
July 11	Committee for Health and Research
July 12	Medical Officers' Reserve Units
July 14	Committee on Arrangements, Annual Scientific Assembly
July 15	Chairmen of Committees
July 21	Grievance Committee
July 26	Medical Officers' Reserve Units

"in matters of public interest for purposes of authenticating information." The Code states specifically that this action by the spokesmen "shall not be considered by their colleagues as a breach of the time-honored practice of physicians to avoid personal publicity, since it is done in the best interests of the public and the profession."

That single sentence cuts to the very core of the problem and in my opinion it is worth all the effort put into framing the document and carrying out its provisions. Colorado's program is a tremendously encouraging sign that the physicians and the press are alive to the importance of giving accurate medical information to the public. I hope the Code will work out and that plans of this type, perhaps broadened in some respects, will be adopted in other states.

For the story of medicine is one which the press and the public are eager to hear. If occasions can be provided for doctors and reporters to come together to discuss medical developments, I am sure both groups will find them worthwhile. Your town wants to know what kind of medicine it has, what facilities and services are available, what types of operation its surgeons are performing, what research projects are under way. The public wants to know what you are doing and saying. Your story and every doctor's story is part of the fabric of its life. It is the story of big and little miracles, of birth and growth and struggle and triumph. It is the story of man himself, and that, God and the atom willing, is still the biggest and best story on earth.

302 Ogden Avenue
Swarthmore, Penna.

News and Personals

Dr. Ernest E. Irons, of Chicago, took office as President of the **American Medical Association** during its 98th Annual Session in Atlantic City, N.J., June 6-10, 1949. He will be succeeded in 1950 by Dr. Elmer L. Henderson, of Louisville, Ky., the new President elect. Dr. Henderson has served as Chairman of the Board of Trustees.

Dr. James F. Norton, of Jersey City, N. J., was elected Vice President. Dr. George F. Lull, of Chicago, continues as Secretary and General Manager. Also reelected to office were Dr. Josiah J. Moore, of Chicago, Treasurer, and Dr. Frank F. Borzell, of Philadelphia, Speaker of the House of Delegates.

The 1949 Interim Session of the AMA will be held in Washington, D.C., December 6-9, 1949. The 1950 Convention will convene in San Francisco, Calif., June 26-30.

The Southeastern Surgical Congress has selected Washington, D. C. as the meeting place for its Eighteenth Annual Assembly. The dates set are March 6-9, 1950, with headquarters at the Shoreham Hotel. Approximately one thousand surgeons from different sections of the country are expected to attend the meetings.

Arrangements for the Assembly were made at a meeting at the Shoreham Hotel, July 9, which was attended by the following officers of the Congress: Dr. R. J. Wilkinson, of Huntington, West Virginia, President; Dr. B. T. Beasley, of Atlanta, Ga., Secretary; and Dr. Harry Lee Claud, of Washington, General Chairman of the Committee on Arrangements. Other committeemen present were: Drs. W. Raymond McKenzie, Albert E. Goldstein, G. H. Yeager and Otto Charles Brantigan, all of Baltimore; Dr. E. L. Gage, of Bluefield, W. Va.; Dr. Waverly R. Payne, Newport News, Va.; and from Washington, in addition to Dr. Claud, Dr. Oscar B. Hunter, President of the Southern Medical Association, Dr. Alan J. Chenery, Dr. James W. Watts and Dr. Charles S. White.

When the Southeastern Surgical Congress was

organized several years ago, it embraced eleven of the Southeastern states. Maryland and the District of Columbia were admitted as member states this year, thus completing the entire tier of Southern states, including the District, east of the Mississippi River as member states of this organization. The membership of the Congress is made up of more than 1,200 leading surgeons. The official journal of the Congress is *The Southern Surgeon*.

At the 17th Annual Session of the Congress, held in Biloxi, Miss., May 23-26, Dr. Claud was appointed one of the Councillors to the Congress, representing the District of Columbia.

At the same meeting the following surgeons from Washington, D.C. were admitted as senior fellows: Drs. Chenery, Claud, Watts, White, Harry H. Kerr, William A. Morgan and Custis Lee Hall; and from Baltimore, Drs. Brantigan, Goldstein, McKenzie, Charles Reid Edwards, J. H. Mason Knox III, William F. Reinhoff and George H. Yeager.

The 14th Annual Meeting of the Mississippi Valley Medical Society will be held at Hotel Jefferson, St. Louis, Mo., September 28-30. Among the guest speakers will be Dr. Oscar B. Hunter, President of the Southern Medical Association. Dr. Hunter will speak on "Progressive Ulceration of the Abdominal Wall—Amoebiasis Cutis."

The American Medical Writers' Association will convene for its Sixth Annual Meeting in conjunction with the Annual Meeting of the Mississippi Valley Medical Society. A two-hour course of instruction in medical writing will be given in the afternoon of September 28 by Dr. J. F. Hammond, Associate Editor of the *Journal of the American Medical Association*. In the evening there will be a social hour, dinner and addresses by journalists.

Programs of both these meetings may be secured from Dr. Harold Swanberg, 209-224 W. C. U. Building, Quincy, Ill. Dr. Swanberg is Secretary of both organizations.

The **Pennsylvania State Society of Anesthesiologists** will hold its annual meeting at the William Penn Hotel, Pittsburgh, September 29, 30 and October 1. Dr. Lloyd H. Mousel, of Washington, will present a paper on "Preoperative Preparation and Choice of Anesthetic Agents" on the opening day. Programs may be secured from Dr. Wm. D. Stewart, 5703 Jackson Street, Pittsburgh 6, Pa.

The **American Board of Obstetrics and Gynecology** announces its next written examination (part I) and review of case histories to be held in various cities of the United States and Canada on Friday, February 3, 1950. Application may be made until November 5, 1949. Request for application forms should be mailed to the Board's office at 1015 Highland Building, Pittsburgh 6, Penna.

A **competitive examination for appointment of Medical Officers** in the Regular Corps of the **U. S. Public Health Service** will be held on October 3, 4 and 5. Applications must be received no later than September 5, 1949.

The Regular Corps is a commissioned officer corps composed of members of various medical and scientific professions, appointed in appropriate professional categories such as medicine, dentistry, nursing, engineering, pharmacy, etc.

Appointments will be made in the grades of Assistant Surgeon (First Lieutenant) and Senior Assistant Surgeon (Captain). They are permanent in nature and provide opportunities to qualified physicians for a lifetime career in clinical medicine, research, and public health.

Application blanks and detailed information regarding requirements, examination, salaries, etc. may be obtained by writing to the Surgeon General, Public Health Service, Washington 25, D.C., Attention: Division of Commissioned Officers.

The **American Academy of Neurology** held its first national scientific meeting at French Lick, Indiana, June 1, 2 and 3. Attending the sessions from the District of Columbia were Drs. Walter Freeman, Zigmond Lebensohn, V. S. Lambros, Lawrence Kolb and Pearce Bailey. Major General Paul R. Hawley, Chief Executive Officer of Blue Cross and Blue Shield, addressed members on "The Place of Neurology in American Medicine in the Future."

NOTICE TO NEW MEMBERS

The books of Group Hospitalization, Inc. will be open again to new subscribers during the month of August. Application blanks may be secured by calling the Society's office, District 3111, and should be completed and in the hands of the Treasurer of the Society no later than August 31.

The Academy, which was founded two years ago, now has a membership of over 700 members. At the French Lick meeting, the Academy adopted a resolution requesting that neurology be adequately represented under the National Mental Health Act.

Present officers of the Academy are: Dr. A. B. Baker, Minneapolis, President; Dr. Bailey, Vice President; and Dr. Joe R. Brown, of the Mayo Clinic, Secretary-Treasurer. At the French Lick meeting Dr. Bailey was chosen President-elect, and Dr. Howard Fabing, of Cincinnati, Vice President-elect.

The third edition of "Fellowships, Funds and Prizes Available for Graduate Medical Work in the United States and Canada," in pamphlet form, has been received in the Medical Society's offices and is available for reference purposes to any physician or medical student. The compilation has been brought up to date and published by the Association of American Medical Colleges, 5 South Wabash Avenue, Chicago 3, Illinois.

The **D. C. Chapter of the American Congress of Physical Medicine** held its monthly breakfast meeting in the cafeteria of George Washington University Hospital, July 6. Informal discussion of the District rehabilitation program followed together with presentation of a number of patients from the Physical Therapy Department of the University Hospital. The Chapter members voted to request permission of the District Medical Society to form a Section on Physical Medicine and Rehabilitation.

At the 1949 Convocation of the **Washington School of Psychiatry**, which was held, June 25, at the Mayflower Hotel, Dr. Merle Antony Tuve, Director of the Department of Terrestrial Magnetism

of the Carnegie Institution of Washington, delivered the principal address on "Science and Values." The program followed a dinner attended by directors of the School, members of the faculty, the graduating class, and guests. Dr. David McK. Rioch, President of the School, presided.

Diplomas in Psychiatry were presented to the following physicians by Dr. Frieda Fromm-Reichmann, Chairman of the Council of Fellows: Drs. Albert Ackerman, Lawrence C. Kolb, Leonard Micon and Robert W. Webb. Certificates in Applied Psychiatry were presented to Sylvia S. Halpert, Mary McB. Green, Virginia K. Gunst, Garland K. Lewis, Isabel C. Phillips, Sara Saltzman and Helen Swick Tepper.

The Washington School of Psychiatry, established in 1936, is the training institution of the William Alanson White Psychiatric Foundation. During 1948-49 the school's enrollment was 459, of which number 172 were doctors of medicine.

The American College of Chest Physicians held its 15th Annual Meeting in Atlantic City, June 2-5, preceding the AMA Convention. Dr. Robert J. Anderson, of the U. S. Public Health Service, and Dr. Richard E. deButts, an Active member of the District Medical Society, were awarded their fellowship certificates at the convocation, June 4.

Dr. Roy G. Klepser presented a paper on "Surgical Management of Lung Abscess." Four physicians, Drs. J. Winthrop Peabody and J. Winthrop Peabody, Jr., of Washington, and Drs. E. W. Hayes and E. W. Hayes, Jr., of Monrovia, Calif., presented a paper in "Idiopathic Pulmonary Fibrosis: Occurrence of the Disease in Twin Sisters." This is probably the first time in the history of medicine that two fathers and two sons, all interested in the same specialty, have prepared and presented a paper at a national meeting.

George Washington University School of Medicine has received a grant of \$37,500 from the U.S. Public Health Service for undergraduate training in psychiatry. According to Dr. Winfred Overholser, head of the Department of Psychiatry, the grant will provide a psychiatrist, social worker, and psychologist to supplement psychiatric training at the University during a three-year period.

Dr. Leon Yochelson, of the staff of St. Elizabeths

Hospital, has been appointed to the post of psychiatrist under the new grant. Dr. Yochelson interned at St. Elizabeths Hospital before the War; after four years of Army service he returned to the Hospital as resident physician. He is a diplomate of the American Board of Psychiatry and Neurology and a member of the American Psychiatric Association.

The Emergency Hospital School of Nursing has announced affiliation with American University for preclinical instruction of student nurses. Effective with matriculation of the fall nursing class, which is scheduled for September 12, the student nurses will be enrolled in the freshman class of the University's College of Arts and Sciences. The program has the approval of the D.C. Nurses' Examining Board.

Mr. James G. Capossela, Administrator of Emergency Hospital, stated the contract with American University was drawn after the District Board of Education said it would cut off training at Wilson Teachers' College after another year. During recent years student nurses from Emergency, Garfield and Sibley Hospitals have taken their academic training courses at Wilson.

The cancer detection clinic of Gallinger Municipal Hospital was closed July 1 and reopened, July 6, in the Addison School in Georgetown, 33rd and P Streets, N.W. The new clinic will be open all day on Monday, Wednesday and Friday, with an additional evening clinic at the Southwest Health Center every Thursday.

At the board meeting of the **District Social Hygiene Society**, June 9, Dr. William P. Herbst was unanimously reelected President. Also reelected to office were Captain Rhoda J. Milliken, First Vice President; Albert W. Atwood, Second Vice President; and Dr. George W. Creswell, Treasurer. Mrs. P. C. Ellett was elected Secretary.

Elected to the board were Dr. Warren F. Draper, Medical Director of the United Mine Workers' Health Fund; Dr. C. Wendall Freeman, head of the Department of Dermatology and Syphilology, Howard University School of Medicine; Bernard I. Nordlinger, Attorney; and Miss Elma Phillipson, Chief of Medical Social Service, Children's Hospital.

Freedmen's Hospital is now a participating hospital of Group Hospitalization, Inc., bringing to 20 the number of hospitals under contract to GHI. GHI subscribers will receive all hospital service benefits available at Freedmen's, regardless of cost, as covered by the subscriber's policy. Heretofore, such service at Freedmen's was available on a non-participating hospital allowance, i.e., a per diem basis.

Surgeon General Leonard A. Scheele of the U. S. Public Health Service has announced the promotion of three staff members to the post of Assistant Surgeon General. They are Dr. Otis L. Anderson and Dr. Vane M. Hoge, of the Bureau of Medical Services, and Miss Lucille Petry, who has headed the Division of Nursing since 1946. She is the first woman ever to hold the office of Assistant Surgeon General.

Dr. Paul A. Reed has been appointed by the District Commissioners to Chief Medical Officer in Surgery of **Gallinger Municipal Hospital**, filling the vacancy created by the resignation of Dr. Brooks G. Brown last March.

Dr. Reed interned at Gallinger and was Junior Resident in Obstetrics and Gynecology before the War. After serving in the Army Medical Corps in the China-Burma-India theater, with the rank of Lieutenant Colonel, he returned to the Hospital as Chief Resident in Surgery.

Other new staff appointments at Gallinger are **Dr. Richard L. Whelton**, Assistant Superintendent, and **Dr. Samuel P. McCarran**, anesthetist. Dr. Whelton graduated from George Washington University School of Medicine in 1947 and joined the Hospital staff on July 1, 1947, as relief admitting officer. He fills the position formerly held by Dr. Philip A. E. Stebbing, who is now Superintendent of the Hospital. Dr. McCarran graduated in 1946 from Georgetown University School of Medicine. He has been stationed at Bolling Air Force Base Station Hospital as Captain in the Army Medical Corps.

Dr. Clayton B. Ethridge, Associate Clinical Professor of Medicine at George Washington University, will receive \$13,700 from the National Heart Institute to further his special studies in the role of the liver in congestive heart failure. His grant was part of a total of \$1,200,000 awarded by the Heart In-

stitute to individuals and institutions which are engaged in combatting heart disease through research and education.

Mr. J. Richard Connelly, formerly Assistant Secretary of the Medical Society of the District of Columbia, has been appointed the first Executive Director of the **American Diabetes Association, Inc.** The announcement was made, July 31, by Dr. Howard F. Root, Boston, and by Dr. John A. Reed, Washington, President and Secretary, respectively, of the Diabetes Association.



J. RICHARD CONNELLY
Executive Director, American Diabetes Association

Mr. Connelly assumed his new duties, August 1. He is now in Boston completing plans with Dr. Root for the Diabetes Detection Drive, which will be initiated during Diabetes Week, October 10 to 16. Although for the present Mr. Connelly will make his headquarters in Washington, he plans to spend much of his time at the Executive Offices in New York at One Nevins Street, and at the Editorial Office in Philadelphia. He holds the position of Business Manager of the Association's magazine, *ADA Forecast*, and other publications.

Mr. Connelly joined the Medical Society's staff early in 1946 as Manager of MEDICAL BUREAU.

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. These engagements were filled through the Society's Speakers Bureau.

Date	Speaker	Subject or Title	Organization
May 26	Dr. William Chase	The Patient and Compulsory Health Insurance	Officers and airmen of National Airport
June 15	Dr. Herbert P. Ramsey	Planning for the Health of the People	College Park Rotary Club
July 1	Dr. Herbert P. Ramsey with Mr. Nelson Cruikshank, of the American Federation of Labor	Will National Health Insurance Solve the National Health Problem?	WMAL-TV radio broadcast sponsored by American University

Shortly thereafter he was appointed Assistant Secretary to Mr. Theodore Wiprud, Executive Director and Secretary, and assumed direct supervision of the Society's office and personnel in addition to management of the BUREAU. He has taken full charge of all arrangements for the ANNUAL SCIENTIFIC ASSEMBLY which the Society holds each fall. In addition he has served as Assistant Secretary of MEDICAL SERVICE OF THE DISTRICT OF COLUMBIA.

Prior to his affiliation with the Medical Society, Mr. Connelly was sales manager of Professional Business Services. During the War he served with the Armored Headquarters Command of the U. S. Army. He received his A.B. degree in political science and socio-economics from American University in 1939, and is a member of Phi Sigma Kappa fraternity.

Mr. Connelly resides with his wife and two children in Arlington, Va.

Dr. Harold Jeghers, Professor of Medicine of Georgetown University School of Medicine, addressed the Alumni Association of Western Reserve University School of Medicine at Lakeside Hospital in Cleveland, June 14. The subject of his address was "Generalized Intestinal Polyposis and Melanin Spots of the Oral Mucosa, Lips and Digits; a Syndrome of Diagnostic Significance."

Dr. Frank D. Costenbader visited Reading, Penna., June 22, to give a talk on "Practical Aids to the Treatment of Cross-eyed Children" before the Reading Eye, Ear, Nose and Throat Society.

Dr. Costenbader was in Boston the week of July 25-29, giving a series of lectures before a class of orthoptic technicians. His lectures were part of a course sponsored by the American Orthoptic Council, under the supervision of Dr. Walter B. Lancaster of Boston. **Miss Dorothy Bair**, certified orthoptic technician to Dr. Costenbader, also participated in the course, giving instructions and demonstrations over a two-week period.

Dr. Walter Freeman, Professor of Neurosurgery at George Washington University School of Medicine, performed the transorbital lobotomy operation on ten mental patients at State Hospital No. 2 in St. Joseph, Mo., July 8.

Dr. Murray M. Copeland addressed the American Society of Medical Technologists at Roanoke, Va. on June 20. His subject was "Medical Use of Radioisotopes."

Friends and former patients of **Dr. O. Anderson Engh** are assisting by manual labor and by gifts in the erection of a new nonprofit hospital in Arlington for the treatment and correction of bone, joint and related disorders.

The hospital will adjoin the Anderson Clinic on land donated by Dr. Engh for this purpose. Ownership will be vested in a board of trustees representing the community. Spearheading the building of the hospital is Carl E. Hengen, Arlington building contractor, with the assistance and coöperation of the Junior Chamber of Commerce. The building is expected to be ready by the end of this year.

The hospital will provide services mainly for indigent crippled children, but adult and private cases will also be accepted. The Board of Trustees will include, in addition to Dr. Engh and Mr. Hengen, J. Raymond Mims, the architect, Arthur R. Pomponio, President of the Northern Virginia Builders' Association, Carlton Hawthorne, President of the Arlington Junior Chamber of Commerce, Raymond C. Brehaut, Ashton Jones, Sr., L. Lee Bean and Cliff R. Johnson. Mr. Brehaut is President of the Board.

Dr. A. Kirk Besley, Superintendent of **Prince Georges General Hospital**, has resigned his position to become Assistant Superintendent of Western Pennsylvania Hospital in Pittsburgh, Pa. He will assume his new duties, September 1. Dr. Besley has served as Superintendent of Prince Georges Hospital since it opened in March 1944.

Dr. John Cronin has become head of the Division of Hospital Facilities of the U. S. Public Health Service. His position as chief of the Federal Employees' Health and Medical Program Division is now filled by **Dr. Daniel J. Daley**.

Dr. Irving Hantman was recently appointed to the Advisory Board of the Washington Hearing Society.

Eleven members of the medical staff of **Children's Hospital** received diplomas, June 26, from Dr. Joseph S. Wall, Chairman of the Staff. The diplomates were Drs. Adrian Recinos, David Johnson, Emilie Black, Joseph Judge, Ellsworth Twible, Harold Bischoff, Abram Berry, Howard Kuder, Morris Tandeta, Milton Rubin, and Joseph M. Perret, Jr. Dr. Judge will continue his studies at the Mayo Clinic, Rochester, under a fellowship in pediatrics; Dr. Twible has been awarded a research fellowship at Boston Children's Hospital.

MEMBERSHIP

The following applicants for membership were duly elected to membership at the meeting of the Executive Board, June 27, 1949, in accord with

Amendment XI, Section 2, of the Constitution and By-laws of the Society:

Active Members

Earl Bower Barnes, 1150 Connecticut Avenue, N. W.
Harry J. Crawford, 816 E Street, N.E.
Marvin P. Footer, 4024 Calvert Street, N.W.
Stanley J. Gordon, 3072 Q Street, N.W.
Lawrence F. Greenleigh, 202 Wilmington Place, S.E.
Dan B. Greer, 3000 Connecticut Avenue, N.W.
Franklin D. Hendricks, 5400 32nd Street, N.W.
Allen E. Henkin, 1801 K Street, N.W.
Wallace H. McCune, 2015 R Street, N.W.
Thomas Ashton Wilson, 1150 Connecticut Avenue, N.W.

Associate Member

Colonel Charles K. Holmes, MC, USA, Office of Surgeon General, Pentagon Building

BOOKS RECEIVED FOR REVIEW

Acknowledgment is made of the following books which have been received for review:

Geriatric Medicine—The Care of the Aging and the Aged, 2nd ed. Edited by EDWARD J. STIEGLITZ, M.S., M.D., F.A.C.P., Attending Internist, Suburban Hospital, Bethesda, Maryland (Chairman Staff 1945-47); Doctors Hospital, Washington, D. C.; Attending Internist (Geriatrics), Chestnut Lodge, Rockville, Maryland; Consulting Internist, Washington Home for Incurables; Associate, Washington School of Psychiatry; Special Lecturer, Institute of Industrial Medicine, New York University, Bellevue Postgraduate Medical School, New York City; formerly Associate Clinical Professor of Medicine, Rush Medical College, The University of Chicago. Price, \$12.00. Pp. 773, with 180 figures. Philadelphia: Saunders, 1949.

Oral and Dental Diagnosis with Suggestions for Treatment, 3rd ed. KURT H. THOMA, D.M.D., F.D.S.R.C.S. Eng., Professor of Oral Surgery, Emeritus, and Brackett Professor of Oral Pathology, Harvard University; Lecturer on Oral Surgery, The Graduate School of Medicine, University of Pennsylvania; with contributions by HENRY GOLDMAN, D.M.D., Head of the Dental Department, Beth Israel Hospital, Boston, AND FRED TREVOR, D.M.D., formerly Instructor in Oral Pathology, Harvard Dental School. Price, \$9.50. Pp. 563, with 776 illustrations, 60 in color. Philadelphia: Saunders, 1949.



WILLIAM GERRY MORGAN, M.D.

WILLIAM GERRY MORGAN, A.B., M.D., F.A.C.P.

(1868-1949)

Dr. William Gerry Morgan, President of the Medical Society of the District of Columbia in 1919, died in Washington, D. C., July 7, 1949, aged 81.

Born in New Hampshire and educated at Dartmouth, Dr. Morgan retained throughout his life the sterling characteristics of honor, clear-thinking, and capacity for hard work typical of his New England forebears. He graduated in medicine from the University of Pennsylvania Department of Medicine in 1893. After a short period in postgraduate work and general practice in Southport, Conn., he began practice in Washington, D. C., and from his earliest years was recognized as a leader in his chosen field of gastroenterology. He was Professor of Gastroenterology and member of the Board of Regents of the Georgetown University School of Medicine, and served as Dean from 1931 to 1935, when he retired with the title of Dean Emeritus.

Dr. Morgan was always interested in the general progress of medicine and held many important offices in national medical organizations. From 1920 to 1926 he was a member of the House of Delegates, and in 1930-31 was President of the American Medical Association. He was a fellow, master, regent, governor, secretary-treasurer and vice president of the American College of Physicians. In addition to being president of the Medical Society of the District of Columbia, he was at various times president of the American Congress of Internal Medicine, the American Gastroenterological Association and the Clinico-Pathological Society of Washington. He held membership in many other medical organizations including the New York Academy of Medicine, Washington Academy of Sciences, Association of Military Surgeons of the United States, and American Association of the History of Medicine. In 1935 Dr. Morgan was delegate from the United States to the International Gastro-Enterological Society in Brussels. He was a diplomate of the American Board of Internal Medicine and was the recipient of several honorary degrees, among them the degree of Doctor of Laws from his alma mater and from Georgetown University.

All of these degrees and society memberships and honors, although they indicate his wide interests and are some measure of his extraordinary abilities, held

only a secondary place in the total activities of his life. He was preëminently a practicing physician whose main interests were constantly centered in his patients. From the early days of his practice in Washington he imposed upon himself the method of taking a complete history and making a complete physical, laboratory and X-ray examination of every patient. Although such a method results in many negative findings he became convinced through years of experience that its revelations of unsuspected disease are so frequent as to completely justify the work and expense entailed. Meticulous attention to detail was one of Dr. Morgan's chief characteristics. Although his personality was unusually attractive and engendered trust and confidence in his patients, it was his capacity for hard work and concentrated attention which accounted for much of his outstanding success in the treatment and management of exceptionally difficult cases.

Dr. Morgan's success as a practicing physician and the honors bestowed upon him in his home city and throughout the Nation are sufficient evidence of his extraordinary ability in the field of medicine. Now that his work is finished and his place secure, those who were intimately associated with him remember him not so much for his outstanding ability but for his attractive personality which endeared him to hosts of friends both among his patients and in the medical profession. He was one whose friendship could be depended upon through thick and thin. His wise counsel will be missed in the organizations of medicine but the greatest loss will be in the hearts of his friends. They share this feeling of loss with his wife and daughters and enter into their sorrow with deepest sympathy.

ARTHUR C. CHRISTIE, M.D.

Dr. William Gerry Morgan, internationally recognized diagnostician, died suddenly, July 7, 1949, in Washington at the home of friends. He had made plans to leave the city the following weekend to join his family at their summer home in West Springfield, New Hampshire.

Dr. Morgan was born in Newport, New Hampshire, May 2, 1868, the son of Gerry and Mary Strong Morgan. He graduated from Fryeburg

(Maine) Academy in 1886, and from Dartmouth College, with the degree of A.B., in 1890. He received his medical training at the University of Pennsylvania School of Medicine, graduating in 1893. He interned at Reading (Pa.) Hospital and took post-graduate work at German Hospital in New York City under Dr. Max Einhorn. He held honorary degrees from the University of Pennsylvania and from Georgetown University.

He came to Washington in 1897 after having practiced for a short time in Southport, Conn. In 1904 he was appointed to the faculty of Georgetown University School of Medicine, and held the post of Professor of Gastroenterology until he was appointed Dean of Medicine in 1931. He retired as Dean Emeritus in 1935.

Dr. Morgan became a member of the District Medical Society in 1898 and its President in 1919. He had been a Life member since 1938. During World War I he served as Chairman of the D. C. Advisory Draft Board. He was Lieutenant (j.g.) in the Medical Reserve Corps of the U. S. Navy from 1913 to 1922 and a Major in the Army Medical Reserve Corps, 1922 to 1932.

He represented the District Medical Society in the AMA's House of Delegates, 1920 to 1925, and served as President of the American Medical Association in 1930-31. He was a Past President of the American Gastroenterological Association (1913), the American Congress of Internal Medicine (1922), the International Medical Club (1930), and the Clinico-Pathological Society of Washington (1919). As a member of the International Gastroenterology Society, he was the United States delegate to Brussels in 1935. Since 1928 he had been a Councillor of the Southern Medical Association.

He was a Fellow of the American College of Physicians and was made Master in 1940, the first award of its kind in 11 years. He held many offices in this organization: Regent 1918 to 1930, Governor for the District of Columbia 1930-33, Secretary-general 1933-37, Vice President 1937, and Historian, 1940.

He was a member of the Medical Society of Virginia, the New York Academy of Medicine, the Association of Military Surgeons, the Washington Academy of Sciences, and numerous other medical groups. He held membership in the American Archaeological Association, the Washington Historical Society, the Cosmos and Metropolitan Clubs, and the

Congressional Country Club. He was a member of Psi Upsilon fraternity.

He had written two books, "Functional Diseases of the Alimentary Tract" and "The History of the American College of Physicians." He had served as an Associate Editor of Tice's System of Practice of Medicine and as Associate Editor of Lippincott's American System of Medicine and Principles and Practice of Physical Therapy. His lectures and papers on internal medicine were published and widely distributed in the profession.

Dr. Morgan is survived by his wife, Mrs. Corrine Boyd Morgan, and three daughters, Mrs. Myra Morgan Stump, Mrs. Osborn R. Hardison, and Mrs. Charles Wellborne, Jr., all of Washington.

His home in recent years was at 3737 Fessenden Street, N.W. He was associated in practice at 1801 Eye Street, N.W., with Dr. William M. Ballinger, President-elect of the District Medical Society, and with Dr. Edwin R. Ballinger, Jr.

WILLIAM BEVERLEY MASON, M.D., F.A.C.S.

(1874-1949)

Dr. William B. Mason, leading otolaryngologist in Washington for many years, died, June 30, 1949, at his home, 2126 Connecticut Avenue, N.W., after a long illness. He was recognized as an outstanding authority in his field of medicine.

Dr. Mason was born in Fauquier County, Virginia, July 26, 1874, the son of John Stevens Mason, a member of the state legislature, and Elizabeth Beverley Mason. He attended the University of South Carolina and the Medical College of Virginia, Richmond, graduating from the latter in 1899. He served his internship at the New York Polyclinic Hospital and later was on the staff of the New York Eye and Ear Infirmary. From 1900 to 1902 he was Clinical Assistant at the New York Eye and Ear Hospital, and Assistant Surgeon, 1902-05, at the Manhattan Eye, Ear and Throat Hospital.

Coming to Washington in 1905, Dr. Mason became associated immediately with the Episcopal Eye, Ear and Throat Hospital, and he retained this association until 1939, when he retired with Emeritus status. From 1931 to 1940 he was Professor of Oto-Rhino-Laryngology at George Washington Univer-

sity, and at the time of his death was Professor Emeritus.

His offices were at 1801 K Street, N.W. For many years he shared offices at 1738 M Street, N.W., with Drs. Daniel B. Moffett and William H. Jenkins.

Dr. Mason was elected to Active membership in the District Medical Society in 1906, and became a Life member in 1947. He was a Fellow of the American Medical Association and the American College of Surgeons, a diplomate of the American Board of Otolaryngology, and a member of the American

Eliza Greene, of Washington; and a brother, Dr. Richard Mason, The Plains, Va.

JAMES MORGAN BARBER, M.D.

(1866-1949)

Dr. James Morgan Barber, practicing physician for more than 45 years, and a Life member of the Medical Society of the District of Columbia, died, July 11, 1949, in Physicians' Memorial Hospital, La Plata, Md. He had been in failing health for several years.

Dr. Barber was a member of an old Charles County (Md.) family. He was born at the family home, The Hope, Md., August 4, 1866, the son of Yates and Eliza Crain Morgan, and was a descendant of Dr. Luke Barber, a Lieutenant Governor of Maryland in Colonial times. He was educated in the public schools of Charles County and graduated from St. John's College. He received his degree in medicine from Georgetown University in 1888.

He came to Washington in 1897 and opened offices at 918 G Street, N.W. He retired in 1935. For the last 14 years he had lived at 1751 Columbia Road, N.W.

He became a member of the District Medical Society and of the Medical Association of the District of Columbia in 1892, and a Life member of the Society in 1933. He was also a member of the American Medical Association. He was affiliated with the Masonic Lodge.

Surviving are his wife, Mrs. Juliette Hungerford Barber; a sister, Miss Mary E. Barber, of The Hope, Md.; and two brothers, Peter Crain Barber, of Washington, and Yates Barber, of The Hope, Md.

SAMUEL HARRISON GREENE, JR., M.D.

(1874-1949)

Dr. Samuel H. Greene, Jr., Life member of the Medical Society of the District of Columbia, died, July 8, 1949, at his home, 2811 McGill Terrace, N. W., after a long illness.

Dr. Greene was born in Montgomery Center, Vermont, the son of Dr. Samuel H. and Mrs. Lucia Buzzell Greene. His father was pastor of Calvary Baptist Church in Washington for more than 40 years.



WILLIAM BEVERLEY MASON, M.D.

Laryngological, Rhinological and Otolological Society (First Vice President 1928-29), the American Otolological Society, and the Clinico-Pathological Society of Washington. Among his social organizations were the University Club, Metropolitan and Chevy Chase Clubs. At the last named he won many cups in amateur golf events.

He contributed a number of articles to scientific publications.

He is survived by his wife, Mrs. Agnes Kennedy Mason; three sons, William B. Mason, Jr., of Washington, John S. Mason, of Baltimore, and Dan-dridge K. Mason, of Pasadena, Calif.; a sister, Mrs.

After graduating from Columbian (now George Washington University) Medical School in 1900, he served for a year as Assistant Resident Physician at Columbian University Hospital. He enrolled for postgraduate study at London Hospital, London, England, in 1901, and began his practice in Washington in the fall of the same year. He was on the hospital staffs of both George Washington and the Episcopal Eye, Ear and Throat Hospitals.

He affiliated with both the Medical Society and the Medical Association of the District of Columbia in 1902, and became a Life member of the Society in 1943. He was a member of the American Medical Association and the Hippocrates-Galen Society. He was also a member of the Chevy Chase Club.

His wife, Mrs. Edna McKnew Greene, survives him.

ERNEST F. SAPPINGTON, M.D.

(1880-1949)

Dr. Ernest F. Sappington, formerly Chief of Staff of National Homeopathic Hospital and one of the pioneers in X-ray, died, June 29, 1949, at his home, 1715 Lamont Street, N.W. He had been ill for several months.

Dr. Sappington had been associated with the Homeopathic Hospital since he came to Washington to take his internship there in 1906. He headed the Hospital staff for about 20 years. His offices were at 1103-16th Street, N.W.

Born in New Midway, Frederick County, Maryland, June 25, 1880, he attended Frederick (Md.) High School and received his medical degree from the Hahnemann Medical College in Philadelphia in 1906.

In 1912 he went abroad for postgraduate study, specializing in surgery and roentgenology at the University of Vienna in Austria.

For many years he had been medical adviser at the John Dickson Home. He was an Active member of the Medical Society of the District of Columbia since 1930, and was a member of the Homeopathic Medical Society of Washington and the Chiron Medical Club. He had been a member of the Mount Pleasant Citizens' Association for more than 30 years. A leading member of the Church

of the Brethren, he taught the Homebuilders' Class, a church group of young married couples.

Surviving are his wife, Mrs. Myrtle Stone Sappington; a son, Dr. Thomas S. Sappington, who is an Active member of the District Medical Society; and three sisters, Mrs. Edward Furry, Union Bridge, Md., Mrs. Clinton E. Nusbaum, Key Mar, Md., and Mrs. Irvin Neine, Laureldale, Pa.

JOSEPH JOHN BATEMAN, M.D.

(1885-1949)

Dr. Joseph J. Bateman, an Active member of the District Medical Society, died in Georgetown University Hospital, July 18, after a brief illness. He had practiced medicine in Washington for 30 years. He maintained both home and office at 3010 Wisconsin Avenue, N.W.

Dr. Bateman was born in Limestone, New York, July 4, 1885, the son of Patrick B. and Marie Ann Bateman. He attended St. Bernard's High School in Bradford, Pa., and received his premedical training at Chicago College of Medicine and Surgery. He graduated in medicine from Loyola University in 1919, and interned at Cook County Hospital, Chicago.

After serving in the Army Medical Corps during World War I, he joined the staff of the U. S. Public Health Service as Assistant Surgeon in 1919 and remained until 1926, when he entered private practice. During his years with the USPHS he was on the staff of Mt. Alto Hospital. During World War II he assisted at Fort Myers as a civilian doctor and was cited by the President for his outstanding work.

Dr. Bateman had been a member of the District Medical Society since 1928 and was a Fellow of the American Medical Association. He was a member of the American Legion, the Knights of Columbus, and the Army-Navy Club.

He never married. Surviving are a nephew, Burnell Bateman, Washington, and three nieces, Miss Barbara Jean Bateman, Jamestown, N. Y., Mrs. Rose Swenson, Washington, and Mrs. Aileen Bateman, Newark, N. J.

CORRESPONDENCE

WASHINGTON, D. C., June 10, 1949

DR. J. ROGERS YOUNG

7TH AND MASSACHUSETTS AVE., N. E.

WASHINGTON, D. C.

DEAR DR. YOUNG:

I saw the article in *Life* this morning which concerns the miraculous recovery of your burned child. I want to say to you that I think you have handled the situation during the past seven months with consummate skill both professionally and ethically and that you set a fine example to younger doctors as to their relations with the press.

Because the *Life* article appears at this time it is valuable in our fight against Socialized Medicine because it is an example of the devotion and really interested attention which the profession now gives even to cases in which there can be no financial reward. The picture which depicts the drugs and dressings already used is graphic and thought-provoking.

The entire story is a report to the public of the knowledge and skill possessed by the doctors, the value of the laboratory, and the intelligent coöperation of the nurses, and the article in *Life* will lead toward a better appreciation by the public of the medical profession as a whole.

Regards,

Sincerely,

JAMES A. GANNON, M. D.

*Chairman, Public Relations Committee,**Medical Society of the District of Columbia*

WASHINGTON, D. C., May 4, 1949

DR. JOHN MINOR, PRESIDENT

MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA

2030 R STREET, N.W.

WASHINGTON, D. C.

DEAR DR. MINOR:

On February 13, 1949, my father, Mr. Russell S. Dowell, was taken ill and upon advice of friends, Dr. John F. Brennan, Jr., of 1704 Michigan Avenue, Northeast, was requested to attend my father, which he so kindly consented to do.

In view of the outstanding services contributed by Dr. Brennan toward my father, I feel the Society should be informed of our high regard and esteem for him.

Dr. Brennan left no stone unturned from February 13 up to and including April 29, at which time my father passed away, but I can't help feel that he passed on with the same regard for the Doctor as is maintained in the immediate family.

Certainly the Medical Society of the District of Columbia should be proud to have a gentleman of Dr. Brennan's medical background on their roster.

Very truly yours,

PAUL A. DOWELL

*Assistant Station Master,**The Washington Terminal Company*

Giant-cell Tumor of Thyroid—Feriozi

(Continued from page 402)

SUMMARY

This is a brief review of the literature of giant-cell tumors of the thyroid gland with a case report. The rarity of this tumor as well as the extensive metastasis from the thyroid gland to the heart and lungs prompted the report of this case.

BIBLIOGRAPHY

1. LAHEY, F. H., HARE, H. F., AND WARREN, S.: Carcinoma of thyroid. *Ann. Surg.*, 1940, **112**, 977.
2. PORTMANN, U. V.: Experiences in treatment of malignant tumors of thyroid gland. *Am. J. Roentgenol.*, 1941, **46**, 454.
3. HARE, H. F.: Radiation treatment of carcinoma of thyroid. *Ibid.*, 1941, **46**, 451.
4. CLUTE, H. M., AND WARREN, S.: Cancer of thyroid gland. *Am. J. Cancer*, 1931, **15**, 2563.
5. THE LAHEY CLINIC: Surgical Practice of the Lahey Clinic, Boston, Massachusetts. Philadelphia: Saunders, 1941.
6. SMITH, L. W.: Certain so-called sarcomas of thyroid. *Arch. Pathol.*, 1930, **10**, 524.

Patrick Manson—Podolsky

(Continued from page 405)

greatest names in the dawn of tropical medicine. They all did their work at about the same time and all three laid the firm foundations of the new science. It was Patrick Manson who inspired Ross to pursue his researches on the *Anopheles* mosquito which led to the final solution of the malaria mystery.

Manson was a man of science, and as a man of science he laid down certain precepts which he followed with great fidelity.

"Never refuse to see what you don't want to see, or what may go against your own cherished hypothesis, or against the views of authorities.

These are just the clues to follow up, as is also, and emphatically so, the thing you have never heard of or seen before. The thing you cannot get a pigeonhole for is the finger-point showing the way to discovery."

By following this thought Patrick Manson was able to make the fundamental discoveries that have immortalized his name. By doing so he was the first of the great conquerors of the oriental and tropical scourges that plague mankind.

Telephone Answering Service—Connelly

(Continued from page 420)

answering service. The urgency of many medical calls is not limited to people without a family physician, but includes the medically well-established.

It is not my intention to give the impression that the only significant emergency calls are those arising

out of accidents, attempted suicides and the unusual, but I do wish to indicate the wider aspects of such a program. At this time I want to pay the highest possible tribute to the physicians who handle the majority of our emergency calls. They are always coöperative and willing to give medical attention any hour of the day or night to strangers in unfamiliar places. These physicians are rendering a wonderful service to the public and are doing a magnificent public relations job for their profession.

There seems to be little doubt but that medical organizations are responsible for setting up programs for emergency medical calls. The particular task of seeing that the doctors are available at all hours of the day and night clearly falls in the province of medical society activities. There is also a real challenge and opportunity offered our organizations to lead in coördinating and establishing the broader concepts of an all-inclusive program.

Washington Physicians of Yesterday—Johnson

(Continued from page 421)

committees. Of the American Medical Association he was a Trustee 1898-1909; Fourth Vice President 1911, and Chairman of its Committee on National Legislation. Other medical societies to which he belonged were the Clinico-Pathological Society (quondam President), Washington Obstetrical and Gynecological Society, Chicago Medical Society, American Therapeutic Society, and American Public Health Association.

A remarkable feature of Dr. Johnson's career was his inveterate attendance and participation as a delegate and officer in international medical conventions in widely separated parts of the world, through which he gained world-wide acquaintance and eminence. The impressive list of these meetings was as follows:

Pan American Medical Congress: beginning in 1893, he was delegate and Vice President of the First, Second, Third, Fourth and Seventh of these Congresses, and in 1915 was President of their International Executive Commission.

International Sanitary Conferences of the American Republics: Vice President of the First, Second and Third, 1902-1907.

International Congress of Hygiene, Berlin, 1907, representative of the United States' State Department.

International Medical Congress, Budapest, 1909.

International American Congress of Medicine and Hygiene, Buenos Aires, 1910, member of Executive Committee.

International Hygiene Exhibition, Dresden, 1911, member of National Committee.

Dr. Johnson was actively interested and engaged in other fields than medicine. He contributed to charitable and civic enterprises. He was a member of the University Club of Washington. He was a member and at one time President of the American Colonization Society; member and Governor of the Society of Colonial Wars; and member of the Society of Descendants of Colonial Governors. The infancy of aviation came toward the closing years of his life, and attracted his interested attention. He was a member of aeronautical associations, one of the founders of the American Association of Aeronautical Engineers, and in 1912 invented a safety airplane and airplane compass and inclinometer.

JOHN B. NICHOLS, M.D.

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THE USE OF AEROSPORIN (POLYMYXIN B) IN SPECIFIC AND NONSPECIFIC ENTERITIS IN INFANTS AND CHILDREN*

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Washington

N 1946, while conducting a systematic antibiotic screening of soil bacteria, Ainsworth¹ isolated a bacterium from the soil which was found to produce a new antibiotic highly active against gram-negative organisms. The organism was identified as *Bacillus aerosporus*, a gram-positive, aerobic, spore-bearing rod, and the antibiotic was originally designated as aerospurin. In July, 1947 Stansly et al² described another antibiotic produced by *Bacillus polymyxa* which was called polymyxin. Various antibiotics

have been derived from *Bacillus polymyxa* and have been designated as polymyxin A, polymyxin B, polymyxin C, and polymyxin D. All members of the polymyxin group are principally basic polypeptides plus a fatty acid component. Aerosporin (polymyxin B) differs from the polymyxin originally isolated by Stansly in that it contains phenylalanine and does not contain d-serine in the polypeptide linkage.

Aerosporin has been found to possess a high degree of bactericidal specificity against gram-negative organisms in vitro. The bacterial spectrum of aerosporin was found to show a lesser range than that of streptomycin; however, among the organisms sensitive to both drugs, Brownlee and Bushby³ have demonstrated that aerosporin is 10 to many hundreds of times more active than streptomycin and was found to have the additional important advantage in vitro of producing no aerosporin-resistant strains of organisms.

* From the Research Foundation of Children's Hospital, Washington, D. C.

This study was supported by a grant to Children's Hospital from the Antibiotic Study Section of the Division of Research Grants and Fellowships, the National Institutes of Health, U. S. Public Health Service.

Aerosporin is manufactured by Charles Pfizer and Company for Burroughs Wellcome and Company.

We are indebted to Dr. Leonard Karel of the Antibiotic Study of the National Institutes of Health for his cooperation in this investigation.

In view of the demonstrated efficacy of aerosporin against organisms of the coliform group in vitro, it was considered of interest to use the drug in a clinical trial in cases of specific and non-specific gastroenteritis in infants and children. During the summer of 1948 a total of 40 cases were treated with the drug. The types of cases are summarized as follows:

Disease	Number of Cases
Nonspecific enteritis	18
Shigella enteritis	16
Salmonella enteritis	4
Typhoid fever	2
Total	40

Representative case reports and a brief resumé of the efficacy of the drug in each group of cases are discussed below.

AEROSPORIN IN NONSPECIFIC GASTROENTERITIS

A series of 18 cases of gastroenteritis of non-specific origin in infants and children were treated with aerosporin. The drug was administered orally in a dosage of 2 mg. per kilogram of body weight every 4 hours for periods ranging from 4 to 10 days. No intramuscular aerosporin was used in this group. The average duration of therapy was 7.2 days. The organisms encountered on stool culture prior to therapy usually included *E. coli*, *Paracolon bacillus*, *Proteus morganii* and *vulgaris*, *Pseudomonas aeruginosa*, and *Streptococcus faecalis*. Within 48 to 72 hours after initiation of aerosporin orally there was a noticeable inhibition of the stool bacterial flora which persisted throughout the course of therapy. Within 2 to 4 days after the drug was discontinued the normal intestinal flora was once again in evidence on stool cultures. Very few of the stool cultures obtained while the patient was receiving aerosporin showed complete inhibition of the coliform intestinal organisms. It was very interesting to note that *Proteus (morganii or vulgaris)* was the predominating organism, and in many stool cultures was the sole organism remaining after aerosporin was given orally. This is to be com-

pared with the phenomenon observed after oral administration of streptomycin, when often the only organism which survived the coliform-inhibiting activity of the drug was *Pseudomonas aeruginosa*.

In the 18 cases of nonspecific gastroenteritis treated with oral aerosporin we were unable to detect any salutary effect either with respect to the duration or the severity of the diarrhea. This opinion is predicated on the fact that during the past 18 months we have been specifically studying the effects of chemotherapeutic agents and antibiotics in both specific and nonspecific gastroenteritis and thus far have managed approximately 400 cases of diarrhea under this program at Children's Hospital. During this time we have run a parallel control series of patients who were managed in the conventional manner without any drug therapy. A comparison of the course of the diarrhea in infants receiving aerosporin with alternate cases receiving no drug therapy indicated that no singular difference in course of the disease was apparent. The evaluation of any therapeutic agent in nonspecific diarrhea is extremely difficult at best and is especially susceptible to abortive claims of therapeutic efficacy of one mode of therapy or another. In this regard, we are at variance with Brownlee and Bushby³ who reported a series of 50 cases of nonspecific diarrhea treated with aerosporin with "extremely encouraging results."

AEROSPORIN IN SHIGELLA ENTERITIS

There were 16 cases of specific dysentery treated with aerosporin orally. The ages of the children ranged from 5 months to 8 years. As for specific etiology, 10 cases belonged to the Sonnei group, while in the other 6 patients a Flexner organism was isolated.

At least 2 positive stool cultures were obtained prior to initiation of therapy. During treatment daily stool cultures were obtained until the patients were discharged from the hospital. The media used included Salmonella-Shigella (SS) agar, desoxycholate citrate agar, and tetrathio-

nate broth. The rectal swab technic was used, and all stool cultures were seeded simultaneously on these 3 media.

Aerosporin was administered by the oral route exclusively in all patients. The dose most commonly employed was 3 mg. per kilogram of body weight every 4 hours. The daily dose of aerosporin ranged from 18 to 60 mg. The duration of treatment varied from 7 to 15 days with an average of 10.6 days per patient. The sensitivity

days after starting aerosporin; the average time required for sterilization of the bowel was 1.2 days (table 1). Clinically the improvement was commensurate with the salutary effect observed bacteriologically. In 2 cases, however, (no. 1 and no. 7) the stools remained positive for *Shigella* throughout the first week of therapy, and after what was considered a fair therapeutic trial the drug was discontinued. Both of these patients subsequently cleared up rapidly on oral strep-

TABLE 1
Summary of 16 Cases of Shigella Enteritis Treated with Aerosporin

CASE	AGE	ETIOLOGIC DIAGNOSIS	AEROSPORIN SENSITIV- ITY OF ORGANISM	DOSE OF AEROSPORIN (ORAL)	DURATION OF TREAT- MENT DAYS AER- OSPORIN	TOTAL AEROS- PORIN	NUMBER POSITIVE STOOL CULTURES DURING TREAT- MENT	NUMBER NEGATIVE STOOL CULTURES DURING TREAT- MENT	OUTCOME
	yrs.		μg. ml.			Gm.			
1. B. C.	2½	Sonnei	0.04	48 mg. q4h	9	2.3	6	1	Treatment failure. Re- treated successfully with streptomycin
2. C. B.	1½	Sonnei	0.02	30 mg. q4h	10	1.7	1	7	Cured
3. D. B.	2½	Sonnei	0.02	40 mg. q4h	10	2.4	2	6	Cured
4. B. L.	5	Sonnei	0.04	60 mg. q4h	14	5.1	1	10	Cured
5. A. S.	2½	Sonnei	0.06	40 mg. q4h	15	3.6	1	11	Cured
6. J. W.	2½	Sonnei	0.04	30 mg. q4h	11	2.0	0	10	Cured
7. J. B.	8	Sonnei	0.04	50 mg. q4h	9	2.7	7	0	Treatment failure. Re- treated successfully with streptomycin
8. J. R.	2½	Sonnei	0.08	30 mg. q4h	10	1.8	1	10	Cured
9. E. T.	3	Sonnei	0.08	40 mg. q4h	10	2.4	2	7	Cured
10. M. B.	4	Sonnei	0.04	40 mg. q4h	12	2.8	4	7	Cured
11. G. C.	3	Flexner	0.02	45 mg. q4h	8	2.2	0	11	Cured
12. A. C.	5	Flexner	0.04	40 mg. q4h	11	2.6	2	12	Cured
13. M. C.	1	Flexner	0.02	18 mg. q4h	10	1.1	0	10	Cured
14. W. H.	4½	Flexner	0.02	40 mg. q4h	13	3.2	0	9	Cured
15. L. H.	3½	Flexner	0.04	45 mg. q4h	7	1.7	1	6	Cured
16. H. F.	½	Flexner	0.04	10 mg. q4h	9	0.54	0	10	Cured

of the organisms encountered in this series varied from 0.02 to 0.08 micrograms per ml.

A series of consecutive negative stool cultures ranging from 7 to 12 (average 10) was obtained before the patient was discharged from the hospital. Once the stool became negative for shigellae on aerosporin therapy, no cultural reversals were noted during the hospital stay.

In 14 of the 16 cases a bacteriologic cure was observed, and in these cases the stool became negative for *Shigella* organisms within 1 to 4

tomycin. It is interesting to note that, in spite of the failure of the drug to effect a bacteriologic cure in these 2 patients, the organism showed no increase in aerosporin-resistance during the course of therapy.

It was our impression that aerosporin affected the course of the disease favorably in the majority of cases both clinically and bacteriologically. However, a comparison between this drug and streptomycin or sulfadiazine in *Shigella* enteritis revealed that aerosporin was somewhat

less effective than either of the latter drugs. It could, however, be used to advantage in cases of *Shigella* enteritis in which the organism was found to be resistant to both streptomycin and sulfadiazine.

AEROSPORIN IN SALMONELLA ENTERITIS

Salmonella infections like those due to *E. typhosa* have shown a singular refractoriness to antibiotic therapy up to now. During the past year 8 cases of salmonella enteritis at Children's Hospital were treated with large doses of streptomycin.⁴ In spite of the demonstrated susceptibility of the salmonella organism to streptomycin in each case 7 of the 8 patients showed only a transitory sterilization of the stool cultures with a recurrence of positive cultures within 3 to 8 days after streptomycin was discontinued. Because of the disappointing results with streptomycin and in view of the sensitivity of salmonella to aerosporin the latter drug was given a therapeutic trial in 4 cases of salmonella enteritis in infants. In the first 2 patients *Salmonella muenchen*, in the third *Salmonella manhattan*, and in the fourth *Salmonella anatum* was cultured. The aerosporin sensitivity of these organisms varied from 0.06 to 0.1 micrograms per ml.

Aerosporin was given both orally and intramuscularly to all 4 patients. The oral dose was 3 mg. per kilogram of body weight every 4 hours, and the intramuscular dose was 0.5 mg. per kilogram every 4 hours. With this dosage schedule spot blood levels taken during the course of therapy ranged from 1.4 to 4.2 micrograms per ml. Thus the aerosporin blood level exceeded the sensitivity of the organism by 20- to 50-fold.

The results of therapy were varied. In case 1, a toxic reaction characterized by fever, malaise, and albuminuria occurred within 2 days after aerosporin was started, and hence the drug was discontinued prematurely before its efficacy against the pathogen could be evaluated. A second trial on aerosporin 10 days later produced a similar toxic reaction in this patient and was again discontinued after 3 days. In case 2 the

stool cultures became negative within 4 days after aerosporin was started, and 10 consecutive daily cultures were similarly negative for salmonella during the course of the child's stay in the hospital. The drug was administered for 9 days, during which time a total of 1.5 grams orally and 0.45 grams intramuscularly had been given. A follow-up stool culture 1 month later was also negative. In case 3 the stool cultures were sterile within 2 days after aerosporin was started, and 7 consecutive cultures were negative during the next 8 days in the hospital. The drug was discontinued on the tenth day, during which time the child had received 1.8 grams orally and 0.24 grams intramuscularly. However, within 5 days after aerosporin was discontinued the stool once again became positive for salmonella. There was no increase in aerosporin resistance when the pathogen reappeared in the stools after termination of therapy. Thus the failure of aerosporin in this case can hardly be explained on the basis of acquired resistance of the organism. In case 4 a severe toxic reaction including fever, diarrhea, malaise and albuminuria occurred within 2 days after the drug was started, and aerosporin was discontinued on the third day before its efficacy against the infection could be evaluated.

In summary, only 2 of the 4 patients received the drug long enough to evaluate its efficacy in salmonella enteritis. One of the 2 showed a bacteriologic cure with the organism being absent from the stools during what was considered an adequate follow-up period. In the other fully treated case a definite inhibitory effect on both the salmonella organisms and the normal stool flora was observed during the period of drug administration; however, the pathogen reappeared in the stools within 5 days after discontinuation of the drug.

AEROSPORIN IN TYPHOID FEVER

Brownlee and Bushby³ have demonstrated that *S. typhi* (Rawlings strain) is inhibited by aerosporin in a concentration of 0.08 micrograms per ml., whereas the same strain is inhibited by

streptomycin in a concentration of 16 micrograms per ml. Thus aerosporin was 200-fold more active than streptomycin against this organism. Because of the inefficacy of streptomycin therapy in typhoid fever as well as the demonstrated susceptibility of the organism in vitro to aerosporin it was considered of interest to test the value of the latter drug in typhoid fever. Two patients with typhoid fever were treated with aerosporin. A summary of 1 of the cases is presented below.

S. H., a 23-month-old colored girl, was admitted to Children's Hospital on August 9, 1948 with the complaints of fever and anorexia of 1 week's duration. The child had been in good health until 7 days prior to admission, at which time she began to run a temperature elevation and shortly thereafter refused her feedings. The fever continued ranging between 101 and 104.5°F., and 3 days after the onset she was seen by her local physician. Three intramuscular injections of 300,000 units of penicillin in oil and beeswax were given on consecutive days but there was no perceptible clinical improvement nor defervescence of temperature. Hospitalization was therefore advised. Past history and family history were noncontributory.

Physical examination revealed a somewhat drowsy, hyperirritable child who appeared moderately ill. The temperature was 104°F., the pulse rate 100, and the respiratory rate 28. Pertinent findings included a mildly injected pharynx, a slight degree of nuchal rigidity, a distended and tympanitic abdomen, and a liver which was palpable 2 cm. below the right costal margin. The spleen was not felt. Physical examination was otherwise negative.

Laboratory examination showed a hemoglobin of 11.5 Gm., 3,900,000 red blood cells, 9,400 white blood cells with 64 per cent neutrophils, 35 per cent lymphocytes, and 2 per cent monocytes. The urinalysis was negative. The nonprotein nitrogen was 30.4 mg. per cent, and the carbon dioxide combining power was 54 volumes per cent. The spinal fluid examination was negative. An X-ray film of the chest was normal. The agglutination test with *E. typhosa* (O antigen) was positive in a dilution of 1:320. A stool culture on admission was negative; however, blood cultures taken on August 11 and August 12 (the third and fourth days after admission) were both positive for *E. typhosa*.

Aerosporin therapy was started on the third day after admission. The dosage was 20 mg. every 4 hours orally (about 2 mg. per kilogram of body weight) and 5 mg. every 4 hours intramuscularly (about 0.5 mg. per kilo-

gram of body weight) (fig. 1). An aerosporin sensitivity determination was performed on the organism isolated from the blood culture and was found to be inhibited in a concentration of 0.02 micrograms per ml. The aerosporin blood levels obtained at this time ranged between 1.4 to 2.1 micrograms per ml. Blood cultures became sterile after the third day on aerosporin and remained negative on 9 consecutive cultures taken over the course of the next 11 days. A positive stool culture was noted on August 15, but 8 consecutive negative stool cultures were obtained thereafter. Daily urinalyses made during aerosporin therapy showed no albuminuria or white cells. Similarly there was no increase in the blood nonprotein nitrogen.

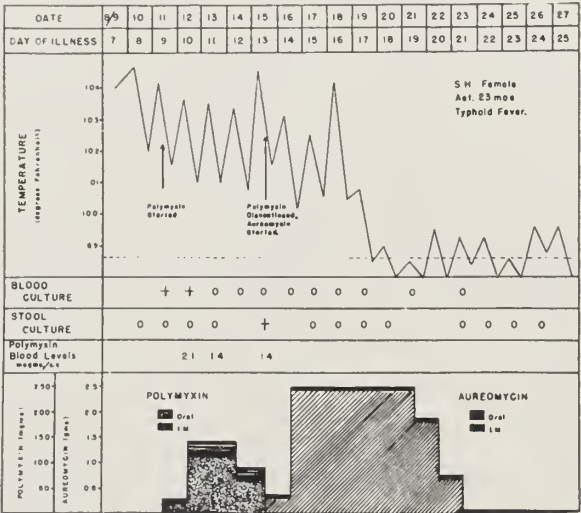


FIG. 1. Salient data of case of S. H. of *E. typhosa* enteritis.

In spite of the favorable bacteriologic effects of aerosporin therapy no clinical improvement was perceptible, and the child remained drowsy and toxic with the temperature fluctuating between 101°F. and 104°F. daily. Vigorous supportive measures were required, including continuous intravenous infusions of crystalloid fluids and plasma and 4 blood transfusions.

In view of the relatively disappointing response to aerosporin clinically the drug was discontinued after 5 days of therapy, and aureomycin was substituted. The latter drug was given in a dose of 200 mg. every 2 hours by mouth (20 mg. per kilogram of body weight) and 20 mg. every 12 hours intramuscularly. During the next 4 days after the initiation of aureomycin therapy the temperature continued to show a daily fluctuation between 101°F. and 104°F. in spite of negative blood and stool cultures, and the child remained acutely ill. On August 20 (18 days after the onset of illness) the temperature came down by lysis and a gradual clinical improvement

ensued. The abdominal distention disappeared, and the patient's appetite improved. The stools, which had been diarrheal during the first 10 days in the hospital, became less frequent and began to show some formed element.

Oral aureomycin therapy was discontinued on August 23 (after 8 days), and the intramuscular administration of the drug was discontinued 4 days later.

During the last week in the hospital the child did quite well although a low-grade temperature elevation (up to 100°F.) was noted every afternoon. The patient was discharged on August 27 after 19 days in the hospital.

A second patient with typhoid fever, treated first with aureomycin and then with aerosporin, yielded discouraging results. In both cases the typhoid organism was extremely susceptible to aerosporin *in vitro*, the sensitivity ranging from 0.02 to 0.04 micrograms per ml. The aerosporin blood levels in both cases ranged from 1.2 to 1.4 micrograms per ml.; thus the blood concentration was approximately 50 times greater than the sensitivity of the organism. Yet, there was no striking clinical effect resulting from the administration of aerosporin in either case. In case 1 the duration of the fever was 18 days, whereas in case 2 the child ran a spiking temperature for 21 days in spite of therapy. Both patients remained acutely ill during the entire period of therapy and followed the same course and duration of illness which characterizes the average untreated patient with typhoid fever in the pediatric age group. It might be said that the bacteriologic response in both cases was somewhat more encouraging than the clinical response.*

TOXICITY OF AEROSPORIN

It has been shown that various members of the polymyxin group possess a renal damage factor (R.D.F.) which produces albuminuria of variable degrees. However, it has been claimed that aerosporin (polymyxin B) is the only member of the polymyxin group which may be used in man without danger of renal damage.³

In view of the fact that no precise data have as yet been reported on the toxicity status of

aerosporin, the patients in our series were carefully observed clinically and pertinent laboratory examinations were performed during the course of therapy, including daily urinalyses and frequent blood nonprotein nitrogen determinations to ascertain whether any evidence of renal toxicity intervened.

Toxicity after intramuscular administration. As will be noted in table 2, the majority of toxic re-

TABLE 2
Comparison of Toxic Reactions after Intramuscular and Oral Administration of Aerosporin

TYPE OF TOXIC REACTION	INCIDENCE OF TOXICITY (PER CENT)	
	Intramuscular (12 cases)	Oral (34 cases)
Local pain and tenderness at site of injection	100	—
Fever	66	0
Malaise and anorexia	50	0
Increased NPN (above 40 mg. per cent)	41	33
Albuminuria	33	10
WBC and/or casts in urine	75	15
Leukocytosis	50	0
Eosinophilia	16	12

actions occurred after intramuscular administration of the drug. In 12 patients who received the drug intramuscularly* local pain and tenderness at the site of injection was observed in every patient. This was ameliorated slightly when 1 per cent novocaine was added to the diluent. Malaise and anorexia were noted in half of the patients in varying degrees. A rise in temperature ranging from 99.5°F. to 101°F. occurred in two thirds of the children during the course of intramuscular administration of the drug. The fever usually appeared on the second day after aerosporin was started and continued as long as the drug was given. Blood nonprotein nitrogen determinations were obtained before, during, and after administration of the antibiotic. With 40 mg. per

* Since this report was submitted we have treated 5 cases of typhoid fever with chloromycetin. The results of therapy in each case have been eminently satisfactory.

* Six of these cases were selected from the ward at random and received the drug experimentally, while the other 6 patients were given aerosporin intramuscularly for a specific infection.

cent considered the upper limit of normal, a slight increase was noted in 41 per cent of the cases. In no instance, however, did the NPN go above 50 mg. per cent, and usually within 2 to 4 days after cessation of the drug the NPN had returned to normal. Albuminuria (ranging from 15 mg. per cent to 200 mg. per cent) was observed in one third of the cases while casts and white blood cells were noted in 75 per cent of patients. It is well to emphasize, however, that in the majority of instances only a portion of the daily urinalyses performed on each patient showed any albumin, white blood cells, or casts during the course of therapy. In all instances the urinary findings substantially disappeared within 2 to 4 days after termination of aerosporin. Leukocytosis ranging from 12,000 to 19,000 white blood cells was noted in 50 per cent of the cases. There seemed to be a positive correlation between the incidence of leukocytosis and the appearance of a febrile reaction in the same patient. An eosinophilia (varying from 6 to 20 per cent) occurred in 16 per cent of the patients. No other changes in the differential count nor in the red blood cell count were observed.

Toxicity after oral administration. After oral administration of aerosporin fewer evidences of toxicity were noted in the 34 cases. This is predicated on the fact that little of the drug is absorbed from the intestinal tract. Spot blood levels taken during oral administration showed no detectable aerosporin titer; however, it is well to point out that with the assay method used in our study the least amount of aerosporin detectable was an amount equivalent to the sensitivity of the *E. coli* test organism, i.e., 0.3 to 0.5 micrograms. One would suspect by inference that small amounts of the drug may have been absorbed after the drug was given orally, since 33 per cent of the patients showed an increase in NPN during therapy; in 1 case the NPN rose to 60 mg. per cent, and in another it went up to 64 mg. per cent. Generally, however, the rise in NPN was slight, ranging from 40 to 50 mg. per cent. In all instances a normal NPN was again

observed within 2 to 4 days after oral aerosporin was discontinued. In contrast to the high incidence after intramuscular administration, only a small number of patients showed transitory albuminuria and microscopic urinary changes after taking the drug orally. Eosinophilia was noted in 12 per cent. Fever, malaise and anorexia did not occur with the oral aerosporin.

The following case summary illustrates well the nature of the renotoxic manifestations after aerosporin administration.

E. E., a 9-month-old colored male infant, was admitted to Children's Hospital on July 31, 1948 with a history of fever and diarrhea of 5 days' duration. He had been in good health until the onset of the present illness, at which time he began to pass 5 to 7 watery green stools a day. Concomitantly the infant began to run a fever and appeared somewhat drowsy and anorexic. The stools remained watery and frequent and continued to have a diarrheal consistency during the next 5 days, at which time hospitalization was advised. No blood or mucus was noted at any time. One week prior to the onset of diarrhea the infant was taken for a visit to a rural section of Maryland and had been given unboiled spring water. The past history and family history were not contributory.

Physical examination revealed a well developed, moderately dehydrated infant who appeared acutely ill. The temperature was 104°F. The skin was hot and dry with some loss of tissue turgor. The eyeballs were sunken and the anterior fontanelle was depressed. The respiratory excursions were suggestive of a moderate acidosis. The physical examination was otherwise not remarkable.

Laboratory examination revealed a hemoglobin of 9 Gm. with 4,140,000 red blood cells and 13,500 white blood cells with 49 per cent neutrophils, 48 per cent lymphocytes, 2 per cent basophils, and 1 per cent monocytes. A urinalysis was negative. Using the copper sulfate falling drop method, the hematocrit was found to be 25 while the specific gravity of blood was 1.047 and specific gravity of plasma 1.030. A carbon dioxide combining power on admission was 27 volumes per cent. Examination of the spinal fluid was negative. A stool culture was positive for *Salmonella* (group C₂) in our laboratory and final identification of the organism by the use of group specific O sera showed it to be *Salmonella muenchen*.*

* We are indebted to Dr. L. R. Kuhn of the Army Medical Center, Washington, D. C., for confirmation and final identification of the organism by the use of group specific O sera.

Initial treatment consisted of vigorous parenteral fluid administration including $\frac{1}{6}$ M lactate, 5 per cent glucose in water, saline, plasma and whole blood. Oral alimentation was withheld for the first 48 hours and then gradually resumed in graded progressive fashion. The initial formula was a weak dilution of powdered protein milk.

During the first 2 days in the hospital the temperature fluctuated between 104° and 105°F. (fig. 2). The diarrhea persisted and the infant remained acutely ill. On the following day the temperature dropped rapidly. When the results of the stool culture became known on the third day, the patient was started on aerosporin (polymyxin B). The dose was 20 mg. orally and 6 mg. intramuscularly every 4 hours. Daily urinalysis, blood non-protein nitrogen determinations, and stool cultures were obtained during the administration of aerosporin.

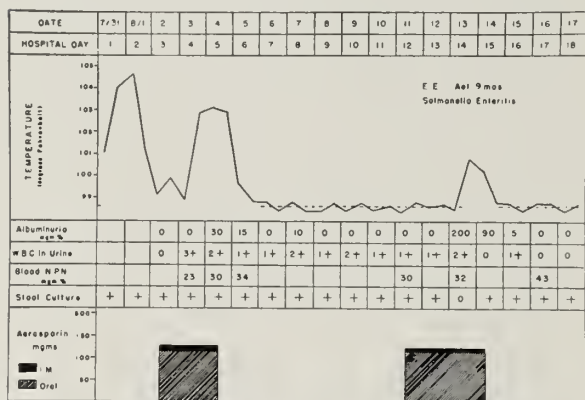


FIG. 2. Salient data of case of E. E. of *Salmonella muenchen* enteritis with renal toxicity.

Within 18 hours after initiation of aerosporin therapy the temperature rose sharply to 103°F. and the infant appeared unduly fretful and somewhat drowsy. A urinalysis obtained on the day after aerosporin was started showed many white blood cells. Blood nonprotein nitrogen determinations during this time ranged between 23 and 34 mg. per cent. Daily stool cultures remained positive for *Salmonella muenchen*.

In view of the febrile reaction and the urinary changes, both of which were considered to be untoward effects of the drug, aerosporin was discontinued after 48 hours. Within 12 hours the temperature dropped precipitously to normal and the infant appeared to be less toxic clinically. Daily urine examinations during the next week showed a disappearance of the albuminuria while a few to a moderate number of white blood cells were still noted in each urine on microscopic examination of the sediment. The infant's clinical condition had improved considerably during this time and the diarrhea had sub-

sided. However, daily stool cultures still remained positive for *Salmonella muenchen*.

In view of our previous disappointing results with other forms of therapy in *Salmonella* enteritis (including streptomycin), it was decided to try aerosporin once more under continued close supervision. On August 12 aerosporin was started again; the dose was 20 mg. orally and 4 mg. intramuscularly every 4 hours. Within 36 hours the temperature again rose, this time to 101°F. Similarly the albuminuria reappeared and showed 200 mg. and 90 mg. respectively on August 13 and 14. There was concomitantly a slight increase in the number of white blood cells in the urine. No azotemia was noted. On the third day of drug administration the stool culture became sterile. However, in view of the recurrence of the untoward reaction aerosporin was discontinued after 3 days. On the following day the stool culture again showed a reappearance of *Salmonella muenchen* and daily cultures remained positive thereafter. The albuminuria disappeared within 48 hours after aerosporin was discontinued, and similarly the white blood cells in the urine were no longer in evidence.

The toxic manifestations of aerosporin may be due to impurities such as histamine-like and pyrogenic factors which may decrease or completely disappear when a pure form of the drug is obtainable. On the other hand, the untoward side-reactions of aerosporin noted in our series may be intrinsic to the drug itself. It would be our impression, however, that the high incidence of toxic reactions especially after intramuscular administration would preclude its widespread usefulness in its present state of purity.

CONCLUSIONS

Aerosporin, a new antibiotic derived from *Bacillus aerosporus*, was given a clinical trial in 40 cases of nonspecific and specific enteritis in the pediatric age group.

The drug was found to be quite effective orally in cases of *Shigella* enteritis. In typhoid fever and nonspecific gastroenteritis little if any salutary effect from aerosporin was observed. The results in *salmonella* enteritis were equivocal.

A high incidence of toxic manifestations from the drug was observed, especially after intra-

CANCER OF THE COLON AND RECTUM*

A Clinical Study of 200 Cases at the Time of Diagnosis

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IN RECENT years, physicians have become increasingly adept in the diagnosis of cancer of the large bowel. As a result, more patients suffering from cancer of the colon and rectum are brought to surgery at an early stage. The results of early diagnosis and treatment before the spread of metastases are striking. As an example, Colcock¹ recently reported a 10-year follow-up of 337 patients who were operated on for cancer of the colon and rectum. It was concluded that better than 50 per cent of the patients without metastases will receive a permanent "cure."

A study of 200 cases of cancer of the colon and rectum seen at this hospital between the years 1936 and 1949 is presented in the hope that the clinical picture at the time of diagnosis may be even more clear.

The paper has been prepared in four parts. The first will deal with anatomic and physiologic considerations of aid in the interpretation of clinical findings. The second part consists of a separate report on complications arising from cancer of the colon and rectum. The third part comprises a report of the uncomplicated cases, and the fourth, a summary of the clinical findings that are applicable to all cases.

ANATOMY AND PHYSIOLOGY

In early embryonic life the gut entoderm is composed of 2 blind tubes, the foregut and the hindgut, and an intermediate region, the midgut.

* Dr. Barrett received First Award for this paper which he prepared for the essay contest sponsored by the Society among house officers in the District of Columbia. The paper was read before the Society on House Officers' Night, March 23, 1949.

The midgut transforms into a considerable portion of the small intestine and the large intestine from the cecum to about the middle of the transverse colon (fig. 1). The blood supply to this

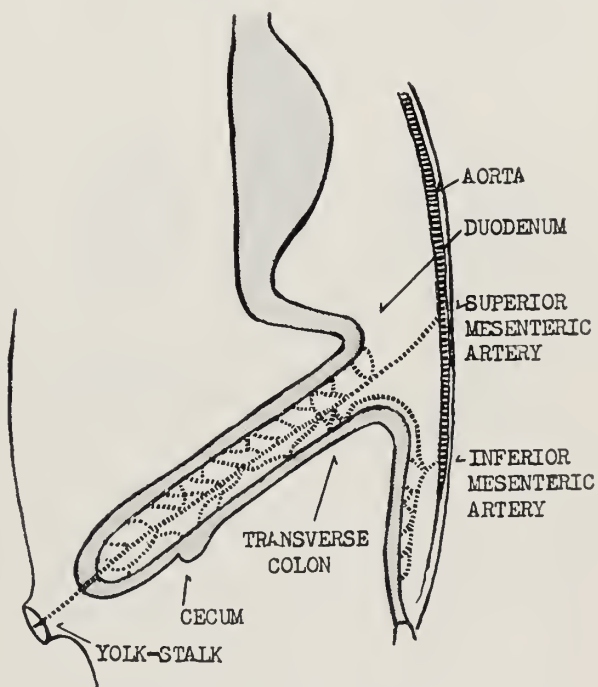


FIG. 1. Early stage development, alimentary tract

division of the intestinal tract is established by the superior mesenteric vessels. The hindgut becomes the remainder of the large bowel and receives its blood supply from the inferior mesenteric vessels.

At about the seventh week, the intestines begin to rotate about the superior mesenteric vessels in a counterclockwise manner and by the fourth month the cecum comes to rest in the right iliac fossa (fig. 2).

Physiologically, the two halves of the colon retain their separate identities as established by the anatomic division. The right colon is primarily an absorptive organ, whereas the left is concerned mainly with storage. The fecal stream on the right is liquid and on the left is firm.

**A. PRIMARY
INTESTINAL
LOOP**



**B. EARLY
ROTATION**



**C. FOETAL
POSITION
APPENDIX**



**D. ADULT
CONDITIONS**



FIG. 2. Rotation of intestinal tract

In the adult the colon measures about 130 cm. in length. The diameter of the cecum is greatest, measuring approximately 7.5 cm. The diameter decreases gradually, progressing distally, to the sigmoid, which averages 3 cm. in diameter.

Knowledge of these anatomic and physiologic differences between the halves of the colon aids us in the interpretation of the clinical pictures produced by cancer in each half. These fundamental points of difference are also the basis for the separate study of each half of the colon. The right half in this report will consist of the cecum, ascending colon, hepatic flexure and right half of the transverse colon. The left will be composed of the distal half of the transverse colon, splenic flexure, descending colon, sigmoid, rectosigmoid and rectum.

**COMPLICATIONS OF CANCER OF THE
COLON AND RECTUM**

Complications were present in 61 or almost a third of the total 200 cases. The complications encountered were those of intestinal obstruction, perforation and intussusception, both with and without perforation.

Locale of complications (figure 3). The left half was the site of 75 per cent of the complications, and the remaining 25 per cent occurred in the right half. This is a ratio of 3:1 between the halves. The sigmoid was the segment involved by the greatest number, 26 or 42.6 per cent, of the complications. The cecum was affected next

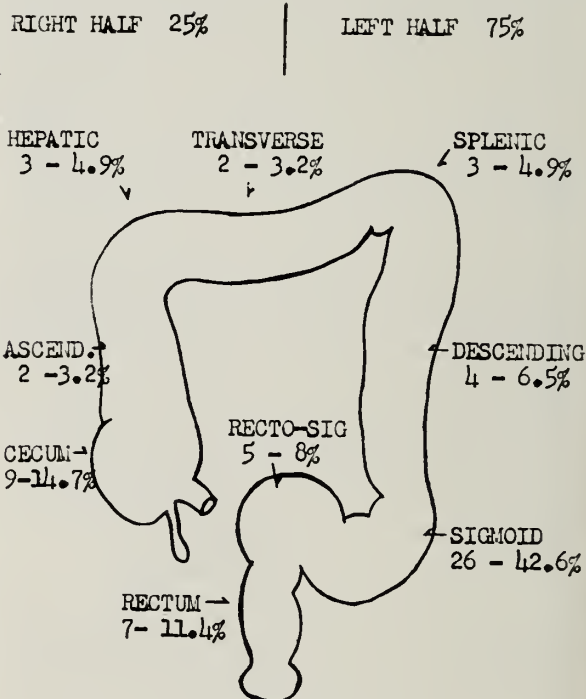


FIG. 3. Locale of complications

in frequency (9 or 14.7 per cent), and the rectum third (7 or 11.4 per cent). The frequency of involvement of the left colon is explained by the high incidence of obstruction in this half.

Types of complications (table 1). Complete intestinal obstruction, both acute and chronic, occurred in 43 or 70.4 per cent of the 61 cases. Obstruction associated with perforation was

found in 4 or 6.5 per cent of the series. Intestinal obstruction, both with and without perforation, therefore, accounted for 47 or 76.9 per cent of the complications. The occurrence of obstruction in three quarters of the cases establishes it as the most frequently associated disease state in cancer of the colon and rectum. Perforation without coexisting obstruction was second in frequency and occurred in almost one fifth of the cases (12 or 19.6 per cent). Intussusception, both with and without perforation, occurred once each.

TABLE 1
Types of Complications

TYPE	NO.	PER CENT
Obstruction	43	70.4
Obstruction & Perforation	4	6.5
Perforation	12	19.6
Intussusception	1	1.6
Intussusception & Perforation	1	1.6
Total	61	100.0

Age and sex. The average age was 61.7 years. There were 32 females and 29 males, an almost even sex ratio.

Previous rectal disease. Five patients had prior rectal disease. Four had a past history of hemorrhoids and 1 of rectal prolapse. This is 8 per cent of the 61 cases and stresses the frequent association of these disorders with large bowel malignancy.

Metastases (table 2). About two thirds of the 61 cases had metastases (41 or 67.2 per cent), whereas about a third did not (20 or 32.7 per cent). These findings indicate that patients with

TABLE 2
Metastases

TYPE	METASTASES	NO METASTASES
Obstruction	31	12
Obstruction & Perforation	2	2
Perforation	7	5
Intussusception	0	1
Intussusception & Perforation	1	0
Total	41 (67.2%)	20 (32.7%)

metastases are more prone to develop a complication. An important fact, however, is that almost one third of the cases with a complication did not have metastases and are, therefore, candidates for "cure."

Gross character of the growth and type of complication. Obstruction was caused in almost every instance by an annular growth. An encircling lesion was the primary pathology in 95 per cent of the obstructed cases and in 100 per cent of the cases with both obstruction and perforation. On the other hand, perforation alone was due to a bulky, fungating, plaque-like tumor in two thirds (66 per cent) of the patients with that complication. Michel² in a recent report found an annular growth in the majority of 55 cases of acute intestinal obstruction due to cancer of the colon.

Gross character of the growth and site. It has long been recognized that cancer produces different types of growths in each half of the large bowel. The right half is the site of a typically bulky, ulcerating mass that tends to penetration. The left half is the locale of the "napkin ring" cancer that tends to encirclement and stenosis.

In the 61 complicated cases, the left half was the site of 46 or 75.4 per cent of the lesions, and of these 42 or 91.3 per cent were annular in nature and 4 or 8.7 per cent, plaque-like. The presence of an annular lesion combines with the relatively narrow lumen of the bowel and the firm fecal material in the left half to produce the obstructive complication.

In the right half there were 15 lesions and 8 or 53.3 per cent were annular and 7 or 46.7 per cent were plaque-like in appearance. The large diameter of the right half and the liquid fecal stream are the probable factors in prevention of obstruction, even in the presence of an annular lesion.

Relation between hemoglobin, site of lesion and metastases. The presence of metastases is reflected by a somewhat lower hemoglobin, but is of little prognostic value when studied from this aspect. Patients without metastases had a lower average

red blood count (3,400,000) than those with metastases (4,100,000) in the left half of the colon. No significance, therefore, can be attached to this factor.

Clinical features of intestinal obstruction. Intestinal obstruction, both acute and chronic, was found in 43 or 70.4 per cent of the 61 cases. Over three quarters had a left-sided cancer (81.3 per cent) (fig. 4). The sigmoid, involved in 19 cases, was the most frequently affected segment. The cecum and ascending colon, each involved twice.

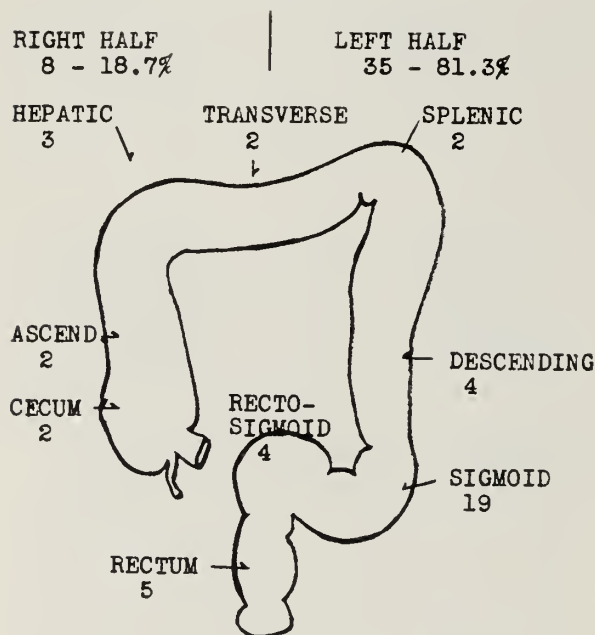


FIG. 4. Locale of obstructing cancer

were the least affected segments. This distribution corresponds with previously mentioned factors that tend to produce the obstructive picture more frequently on the left side.

Burgess³ of Manchester, England, found that obstructing growths were about 6 times more common on the left side of the colon than on the right side. There is rather general agreement that about 90 per cent of the cases of large bowel obstruction are due to carcinoma.

The average age of patients was 58.9 years. The average duration of symptoms was 5.3

months, with extremes of 4 days to 24 months. Seven of the cases were of acute duration and the remainder were chronic. Weight loss was noted by 41.8 per cent of the patients. On admission to the hospital, about a third were in poor condition (30.2 per cent). Even though weight loss, progressing to poor physical condition in most, occurred in almost half the cases, only 7 or 19 per cent complained of weakness.

The symptoms of epigastric discomfort, anorexia, nausea and vomiting each occurred in close to one half the cases. These symptoms are commonly associated with the high intestinal type of obstruction. About one third or 13 of the obstructed patients gave a history of all of these symptoms (30.3 per cent). Another 3 complained of anorexia, nausea and vomiting, but no epigastric discomfort. There were 7 or 16.2 per cent of the 43 cases that did not experience any of these symptoms. In the remaining 20 cases the symptoms were divided. The relatively low incidence of occurrence of these symptoms is probably due to the prevention of reflux of intestinal contents from the large to the small bowel by the ileocecal valve. The absence of all of these symptoms in 16.2 per cent of the cases is illustrative of the fact that large bowel obstruction may exist without these "high-obstructive" symptoms.

Abdominal pain was present, in varying degrees, in almost 90 per cent of the 43 cases reviewed (38 or 88.3 per cent). Abdominal pain is, therefore, another valuable clue to the diagnosis of cancer of the colon and rectum, especially in the obstructive phase.

A change in bowel habit was found in 90.5 per cent of the cases. The occurrence of this complaint in nine tenths of the cases places it as one of the most important clinical changes produced. Constipation, occurring in 76.7 per cent of the cases, was the most commonly found alteration in bowel habit. Alternating constipation and diarrhea occurred in 4.6 per cent of the patients, and diarrhea in 9.2 per cent.

The stools were abnormal in a third of the cases, (15 or 34.7 per cent). Of these, 10 were bloody, 2 were both bloody and tarry, and 3 were tarry.

Distention, noted in almost 90 per cent of the cases, was the most commonly found sign on abdominal examination. It was found equally alone and associated with other findings. Tender-

RIGHT HALF 0 - 0% | LEFT HALF 4 - 100%

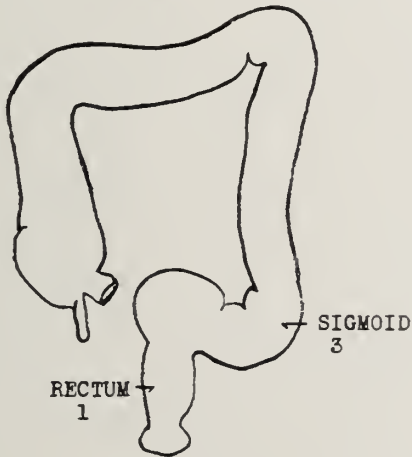


FIG. 5. Intestinal obstruction and perforation

ness was present in about half of the cases, 48.8 per cent, and a palpable mass was present in 7.8 per cent.

Clinical features of combined intestinal obstruction and perforation (figure 5). The ileocecal valve or sphincter plays an important role in the production of obstruction and perforation. The primary malignant growth acts as the distal occlusion of the large bowel and the ileocecal valve as the proximal occlusion. The valvular structure allows small intestinal contents to be emptied into the colon but prevents or minimizes regurgitation of these contents back into the small bowel. As a result of this, a closed-loop type of obstruction is produced, and, if not alleviated, perforation of the bowel wall results. Generalized peritonitis may then ensue as it did in the 4 cases in this series. Michel² found 8 cases of perforation in 55 cases of obstruction due to cancer of the

colon. In this series of cases the obstructing lesion was in the sigmoid in 3 cases and in the rectum in the fourth (fig. 5).

The average age was 70 years and the average duration of symptoms was 4.7 months. Three patients complained of weight loss and weakness and all were in poor physical condition.

Peritonitis, as a result of perforation, added to the clinical picture. Epigastric discomfort, anorexia, nausea and vomiting, and abdominal pain were found in all the cases. All complained of constipation, but only 1 had a bloody stool. The physical findings of distention and tenderness were noted in each case.

Clinical features of perforation. Twelve cases of perforation without associated obstruction or 19.6 per cent of all complications were found. Barga and Cox⁴ in a review of 1,502 cases of

RIGHT HALF 6 - 50% | LEFT HALF 6 - 50%

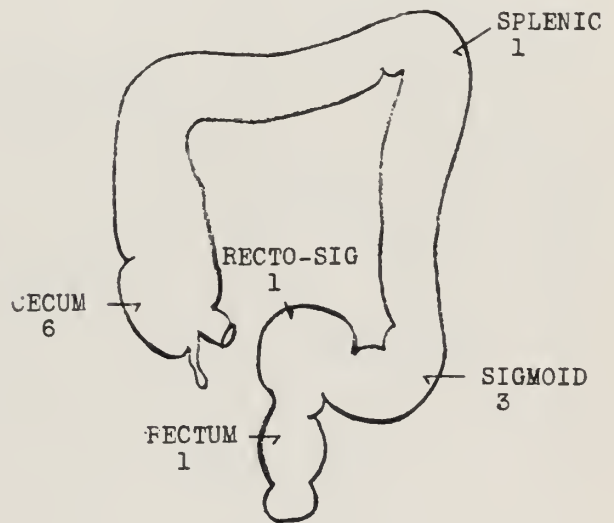


FIG. 6. Perforation

cancer of the colon noted perforation in 9.3 per cent of the cases. When the 4 cases in this series of obstruction and perforation occurring together are combined with the 12 cases of perforation alone, the total, 16, is 8 per cent of the entire 200 cases studied.

One half or 6 of the cancers were in the cecum, and the remainder were distributed in the left colon (fig. 6).

The average age was 54.7 years and the average duration of illness was 5.5 months. One third or 4 of the patients were in poor physical condition and 5 complained of weight loss and weakness.

Epigastric discomfort, anorexia, and vomiting were found in less than half the cases and nausea in half of them (6). Abdominal pain was present in all. Tenderness was found in 9 cases and distention in 5, on abdominal examination. A palpable mass was present twice. Of the 12 cases, 5 noted a change in bowel habit, 4 with constipation and 1 with diarrhea. Three of the 12 patients gave a history of bloody stools.

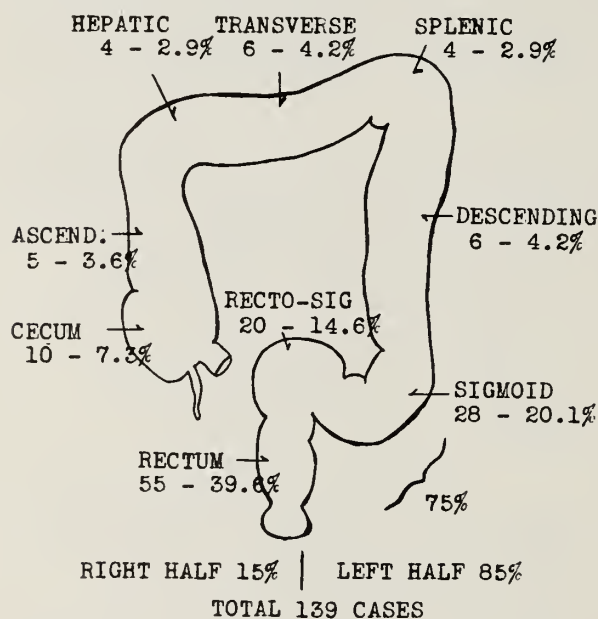


FIG. 7. Cancer of the colon and rectum (uncomplicated)

Clinical features of intussusception. Two cancers, 1 in the cecum and 1 in the sigmoid, were associated with ileocolic intussusception. In addition to the intussusception, perforation also complicated the case with the sigmoidal growth. The patient with intussusception alone had a 2-month duration of illness. The patient with both intussusception and perforation was ill only 4 days.

UNCOMPLICATED CASES OF CANCER OF THE COLON AND RECTUM

Locale of lesion (figure 7). One hundred and thirty-nine patients with cancer of the colon and rectum without complications were studied. About 85 per cent of the lesions were found in the left side and only 15 per cent in the right. The rectum, involved in over a third of the cases, was the most frequently affected segment (55 or 39.6 per cent). The sigmoid, rectosigmoid and rectum together accounted for 74.3 per cent. Taking into account 1 double lesion, occurring in the rectum and sigmoid, the incidence for these 3 sites is 75 per cent. This is three quarters of the total and demonstrates the predilection of cancer for the lower colon. The cecum was the most frequently involved site in the right half (7.3 per cent). The high incidence of cancer in the cecum on the right and in the lower colon on the left suggests that the areas most subjected to irritation are most frequently affected.

Age and sex. The average age for the 139 cases was 55.7 years. This is 6 years less than the average of the 61 patients with a complication.

The sex of the patients was studied according to the site of the lesion and presence or absence of metastases. Of the 139 cases, 60 or 43.1 per cent were males, and 79 or 56.9 per cent were females. Females suffered cancer of the right half almost twice as often as males, and were slightly more commonly affected by cancer in the left half. Both sexes had about equal metastatic involvement.

Dukes⁵ states that cancer in the proximal colon is more commonly found in females, whereas cancer of the distal colon is more frequent in men.

Previous rectal disease. Previous rectal disease was noted in about a quarter of the 139 cases studied (32 or 23 per cent). Almost 85 per cent of these patients had lower colon lesions (27 or 84.3 per cent). There were 26 patients with a history of hemorrhoids, and 22 of these had left-sided cancer. Rectal malignancy was found in one half of these 22 cases.

Because of the high incidence of hemorrhoids found with cancer of the colon, especially in its lower reaches, many surgeons always make a sigmoidoscopic examination before doing a hemorrhoidectomy. Browne⁶ reported 209 cases of cancer of the large intestine and noted that 18 per cent of the patients with rectal malignancy had undergone treatment for hemorrhoids.

Sites of lesions and relation to metastases. Of the 139 cases, 72 or 51.9 per cent had metastases and 67 or 48.1 per cent did not. The right half of the colon was the site of 15.8 per cent of the lesions, and 84.1 per cent were found in the left half. The incidence of metastases was about the same in each half.

Relation between hemoglobin, site of lesion, and metastases. In the 139 cases the average hemoglobin was 69.3 per cent. The average hemoglobin of 72 cases with metastasis was 66.3 per cent, while that for 67 cases without metastasis was 70 per cent. A low hemoglobin average of 65 per cent was found in the cases with cancer of the right colon, both with and without metastases. No prognostic significance was indicated in this group. In the left half of the colon, however, the hemoglobin average of 57 patients without metastasis was 70.9 per cent, whereas the hemoglobin in 59 patients with metastasis was 66.4 per cent. This indicates that an anemic state may be associated with metastases in left-sided lesions.

The anemia produced by right-sided lesions is often profound and without any obvious reason for its cause. In this series the stools of 18 of 22 patients (86.7 per cent) with right-sided lesions without complications were normal and only 4 or 18 per cent were bloody or tarry. On the other hand, 75 per cent of the patients with cancer of the left half had bloody or tarry stools, an obvious reason for anemia. In the absence of an obvious explanation for anemia in right-sided cancer, it has been proposed that the anemia is due to a perverted function of the mucous membrane of the colon, allowing the absorption of toxins and resultant anemia.

Epigastric discomfort, anorexia, nausea and vomiting, abdominal pain. None of the symptoms of epigastric discomfort, anorexia, nausea and vomiting occurred more frequently than in 23 per cent of the cases. The more frequent occurrence of these symptoms in the obstructed cases, ranging from 41 to 58 per cent, points out that these 4 symptoms form a complex that is found almost twice as often in the obstructed group than in the nonobstructed group. Browne,⁶ in his study, found that 44 per cent of 209 cases of cancer of the large bowel had this same symptom-complex.

Almost two thirds of the patients (64.7 per cent) complained of abdominal pain of varying intensity. Abdominal pain was found more frequently in the group of patients suffering from obstruction (88.3 per cent). Of 22 patients with cancer of the right half, 19 or 86.3 per cent complained of abdominal pain, whereas 71 or 60.6 per cent of 117 patients with cancer of the left half had this symptom. The frequent occurrence of abdominal pain in these right-sided lesions results in mistaken diagnoses of appendicitis and gallbladder disease.

Bowel habits. A change in bowel habits was noted in 118 or 85 per cent of the 139 cases. This complaint was noted about equally in the halves, 86 per cent in the left half and 84 per cent in the right half. A change in bowel habits is probably the most important symptom in aiding the recognition of cancer of the colon. About a half of the patients complained of constipation (68 or 48.9 per cent). It was noted in 14 or 63.6 per cent of the right-sided lesions and in 54 or 46.1 per cent in the left half. Diarrhea was more common in the left side, occurring in 24.8 per cent, as against 13.5 per cent of those with cancer of the right half. In 9 per cent of the right-sided lesions, and 13 per cent of the left, alternating diarrhea and constipation was present.

In studies of the changes in bowel habit produced by left-sided lesions, constipation was noted in 52 per cent and 53 per cent of the patients by Rosser⁷ and Browne,⁶ respectively.

Diarrhea was present in 29 per cent (Rosser) and 17 per cent (Browne). In addition, 13 per cent of Browne's series had alternating diarrhea and constipation. In studying right-sided lesions, however, neither of these authors noted a single case of alternating diarrhea and constipation. There were, however, 2 such cases in the 22 right-sided cancers of this series.

In a study of 110 cases of cancer of the left colon (splenic, descending, sigmoid), Coller and Berry⁵ noted a change in bowel habits in 81 or 73.6 per cent. Constipation and diarrhea were equally divided, one or the other being present in 88 per cent of these with altered habits. In the remaining 10 cases alternating diarrhea and constipation were present, and the lesions were all of the sigmoid colon.

Stool changes. Abnormal stools were noted in 93 or 67 per cent of the cases. Of the 93 abnormal stools, 86 per cent were bloody, 7.5 per cent tarry, and 6.5 per cent were both bloody and tarry. In the left half 75 per cent of the lesions produced abnormal stools, and the right half only 18 per cent of the growths caused bleeding. This illustrates the tendency of cancer of the left half to bleed. This has been ascribed to irritation of the primary lesion by the hard feces found in the left colon.

Rosser⁷ in 1936 reviewed 100 cases of cancer of the colon and reported melena in 14 per cent with lesions of the proximal colon as against 78 per cent for lesions of the left half. Coller and Berry⁸ found that in 81 patients with cancer of the left colon who had noted change in bowel habits, two thirds had gross blood in their stools. Sprenger,⁹ in reviewing 327 cases of cancer of the colon, found that blood in the stool was found in 68.6 per cent of the cases with cancer of the left side and in only 15.3 per cent of the right side.

Weight loss, weakness, general condition, duration of illness. Loss of weight occurred in 40.9 per cent of the patients with right-sided lesions and in 49.5 per cent of the patients with left-

sided cancer. Of the total 139 cases, 67 or 48.1 per cent noted weight loss.

Weakness was a complaint of about a third of the patients (42 or 30.2 per cent). Of those complaining of weakness, 33 also gave a history of loss of weight, an incidence of 78.5 per cent. This rather definitely associates these two findings.

Of the total cases, two thirds were in good condition (93 or 66.9 per cent), and a third were in poor physical condition (46 or 33.1 per cent). Good condition was noted in about two thirds of the patients with lesions in the left half (65.8 per cent), and in over two thirds of those in the right half (16 or 72.8 per cent).

The average duration of symptoms was 7.5 months for cancer in the right half as against 10 months for the left half, a difference of 2.5 months. The total average of 139 cases was 8.8 months. Postlethwait¹⁰ found that the average duration for 441 cases of cancer of the colon and rectum was 8.7 months.

Weight loss and duration of illness. In 38 cases the patient was able to state the amount of weight lost and the time interval in which the loss occurred. The average weight loss in the 38 cases was 26.6 lbs. in a 9-month period, or an average of 2.9 lbs. loss per month. About two thirds of these patients had metastases (24 or 63.1 per cent), whereas the remaining third did not (14 or 36.9 per cent). In the group with metastases the weight loss was 28.6 lbs. in 9.2 months or 3 lbs. loss per month. In those without metastases, a 23.3 lb. weight loss in 8.6 months or 2.7 lbs. loss per month was found. From this report, one may conclude that weight loss is only slightly more severe in the group with metastases.

For the 5 patients with right-sided lesions the average weight loss was 27.5 lbs. in 11 months, or 2.5 lbs. loss per month. There was loss of 22.7 lbs. over 8.6 months, an average loss of 2.6 lbs. per month for left-sided lesions. There was no significant difference in the weight loss per month on either side. However, the period of weight loss was about 2.5 months greater in the right half

in this group. This indicates that weight loss is roughly parallel to the duration of illness.

Coller and Berry⁸ found that 38 patients in a series of 167 with cancer of the colon gave a history of weight loss of 15 lbs. during the disease. Twenty-one or 55.3 per cent of the lesions proved to be resectable at operation. No definite correlation between prognosis and loss of weight could be established in their series.

CLINICAL FEATURES OF ENTIRE SERIES

Locale of lesion. A review of all 200 cases of cancer of the colon and rectum reveals that 37 or 18.5 per cent of all the lesions occurred in the right side and 163 or 81.5 per cent in the left

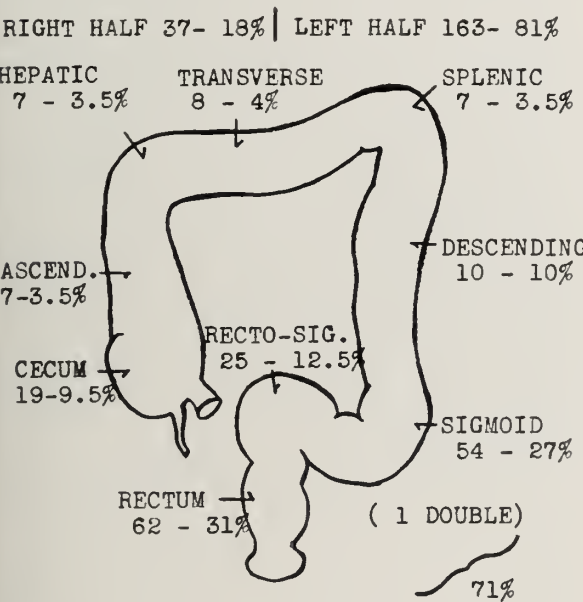


FIG. 8. Locale (200 cases)

side (fig. 8). Seventy-one per cent of the lesions occurred in the lower colon, i.e., sigmoid, recto-sigmoid and rectum.

Hendrick¹¹ in 1934 collected 4,298 cases of cancer of the colon and rectum from the literature and found the incidence to be highest (56 per cent) in the rectosigmoid-rectum, followed by the cecum (15 per cent) and the sigmoid (13 per cent).

Rankin and Graham¹² state that well over 75 per cent, and probably nearer 90 per cent, of all lesions of the rectum and rectosigmoid are within reach of the examining finger; and that the remaining may be visualized through the electric proctoscope. The occurrence of 71 per cent of the total malignant lesions in the lower colon in this series has been pointed out. It becomes apparent, then, that visualization of a majority of the cancers is possible, and the value of digital examination of the rectum is reëmphasized.

Locale and metastases. Of the 200 patients, 113 or 56.5 per cent had metastases and 87 or 43.5 per cent did not. Of the cancer found in the right half of the colon, 62 per cent had metastases, as against an incidence of metastases of 55 per cent on the left side.

Rankin¹³ in 1933 studied 753 cases of cancer of the colon and rectum that underwent surgery and found an incidence of glandular involvement of 34 per cent in the right colon, 31 per cent in the left colon, and 46 per cent in the rectum.

Coller, Kay and MacIntyre¹⁴ found lymph node involvement about the same in the cases of carcinoma of the right and left halves of the colon.

TABLE 3
Age by Decades and Metastases
(200 Cases)

DECADE	YEARS	METAS-TASES	NO METAS-TASES	TOTAL
First	0-9	0	0	0
Second	10-19	0	0	0
Third	20-29	1	2	3 (1.5%)
Fourth	30-39	12	3	15 (7.5%)
Fifth	40-49	16	21	37 (18.5%)
Sixth	50-59	27	23	50 (25.0%)
Seventh	60-69	31	29	60 (30.0%)
Eighth	70-79	20	12	32 (16.0%)
Ninth	80-89	3	0	3 (1.5%)
Tenth	90-100	0	0	0

Age by decades and metastases. The seventh, sixth and fifth decades were the most commonly involved in that order of frequency (table 3).

The least commonly affected decades were the third and ninth. Of the 15 patients in the fourth decade of age, 4 times as many had metastases as those without (12.3). According to Coller and Berry⁸ the most common age groups to be involved are the sixth and seventh. Sprenger,⁹ reviewing 237 patients with carcinoma of the colon, noted the incidence greatest in the 50 to 70-year age group.

The prognostic significance of hemoglobin below 70 per cent. In the series of 200 cases about one third had hemoglobin values below 70 per cent. Of these 65 cases over two thirds (69.2 per cent) had metastases and 20 or 30.8 per cent did not. Of the 37 cancers occurring in the right half in this series, 15 or 40 per cent had had hemoglobins of less than 70 per cent and, of these, 9 or 60 per cent had metastases. Of the 163 cancers of the left half, 50 or 30 per cent had hemoglobins below 70 per cent and, of these, 36 or 72 per cent had metastases. This study indicates that in those patients with hemoglobins below 70 per cent, about two thirds will have metastases. This is important from a prognostic standpoint.

Coller and Berry⁸ found hemoglobin levels of less than 70 per cent in 52 of 167 patients or 34.3 per cent. Twenty-two of 40 patients with cancer of the right colon (55 per cent) had hemoglobin determinations of less than 70 per cent. No correlation between prognosis and degree of anemia could be established. Twenty-eight of 110 patients with left-sided cancer (25.4 per cent) had hemoglobins of less than 70 per cent. Of this group, 19 or 67.8 per cent were inoperable. It was thought that these low hemoglobin values would be of significant prognostic import in cancer of the left colon.

SUMMARY

A clinical study of 200 cases of cancer of the colon and rectum is contained in this report. A correlation of the clinical picture with the lesion and the altered physiology is presented in order to enable a better understanding of the disease.

About a third of the 200 cases had an associ-

ated complication (30.2 per cent). In three fourths of the complicated cases, the primary lesion was found in the left half of the colon. Of the complications, intestinal obstruction was most frequently found (70.4 per cent). The factors influencing the production of the obstructive complication in the left half have been reviewed, and a study of the obstructing lesion reveals it to be annular in nature in almost every case (95 per cent). In this group with complications about one third had no metastases (32.7 per cent). This indicates that, even though the patient has a complicating disease state, an appreciable number are candidates for "cure."

A study of the clinical picture of each complicating disease state has been presented. The high frequency of occurrence of abdominal pain and change in bowel habits is stressed. Abnormal stools were noted in about one third of the cases. The study reveals that a symptom-complex of epigastric discomfort, anorexia, nausea, and vomiting was absent in an appreciable number of the obstructed cases (7 or 16.2 per cent).

In the review of 139 uncomplicated cases a preponderance of the lesions was found in the left half of the colon (85 per cent), with a predilection for the lower reaches of the large bowel. The frequent association of rectal disease, mainly of hemorrhoids, with cancer in the lower colon was also noted.

The relationship between the hemoglobin level, site of the primary lesion, and the presence or absence of metastases was studied. Anemia was found to be associated with metastases in the left half of the colon to a significant degree. A more profound state of anemia was present in those cases with right-sided lesions, both with and without metastases.

Abdominal pain, change in bowel habits, and abnormal stools were also found to be the most reliable guides to diagnosis in this uncomplicated group. The high incidence of abdominal pain in cases with cancer of the right half of the colon (85 per cent), a possible cause for frequent mis-diagnosis of cancer in this region, is noted.

Weight loss had occurred in just less than half of these 139 uncomplicated cases (48.1 per cent), and a third were in poor condition (33.1 per cent). Weakness was a symptom of 30.2 per cent of the patients, and of these 78 per cent also noted loss of weight.

There were 38 patients in the uncomplicated group that were able to state the amount of weight loss and the time interval in which the loss occurred. The amount of weight loss was about parallel to the duration of illness. Weight loss was found to be only slightly more severe in the group with metastases than in those without metastases.

Certain features of the disease that were applicable to all 200 cases were reviewed. A preponderance of left-sided lesions was found (85 per cent). The high incidence of lower colon and rectal involvement is again noted. It is pointed out that this tendency toward lower bowel involvement enables visualization of a great majority of the growths by proctoscopic and sigmoidoscopic examination. The value of digital examination in diagnosis of rectal and rectosigmoid cancer is reemphasized.

The incidence of glandular involvement in the 200 cases was greater on the right side (62 per cent) than on the left (55 per cent). It is pointed out that in another review metastatic involvement was found more frequently on the left side,

and in another study the incidence of metastases was about equally divided between the halves of the large bowel.

The seventh decade of age was the most frequently involved age group in this series. A rather high incidence of metastasis was noted in the fourth decade. No significant sex relationship to cancer was noted.

The prognostic significance of anemia was studied in a group of 65 patients with hemoglobin levels of less than 70 per cent. It was found that about two thirds of these cases had metastases, and this was felt to be of prognostic import.

BIBLIOGRAPHY

1. COLCOCK, B. P.: *Surg., Gynec. & Obst.*, 1947, **85**, 8.
2. MICHEL, M. L.: *New Orleans M. & S. J.*, 1948, **100**, 397.
3. BURGESS, A. H.: *Brit. M. J.*, 1923, **2**, 547.
4. BARGEN, J. A., AND COX, F. W.: *Minnesota Med.*, 1932, **15**, 466.
5. MAINGOT, R., DUKES, C. E., AND LLOYD-DAVIES, O. V.: *Proc. Roy. Soc. Med.*, 1945, **38**, 377.
6. BROWNE, D. C.: *New Orleans M. & S. J.*, 1936, **88**, 495.
7. ROSSER, C.: *South. Surgeon*, 1936, **5**, 290.
8. COLLIER, F. A., AND BERRY, R. L.: *J. A. M. A.*, 1947, **135**, 16.
9. SPRENGER, L. A.: *Illinois M. J.*, 1948, **93**, 92.
10. POSTLETHWAIT, R. W.: *Ann. Surg.*, 1949, **129**, 34.
11. HENDRICK, J. A.: *New Orleans M. & S. J.*, 1934, **87**, 150.
12. RANKIN, F. W., AND GRAHAM, A. S.: *Cancer of the Colon and Rectum*. Springfield, Ill.: Thomas, 1947.
13. RANKIN, F. W.: *J. A. M. A.*, 1933, **101**, 491.
14. COLLIER, F. A., KAY, E. B., AND MACINTYRE, R. S.: *Ann. Surg.*, 1941, **114**, 56.

HORMONAL ALTERATIONS OF ADVANCED CANCER OF THE BREAST

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THE relationship of the breast to the ovary has been recognized since the writings of Cooper¹ in 1829. Since it was demonstrated that hormones were concerned with mammary development and function, it became obvious that they might be of major importance in the genesis of disease of the gland. The principle of inhibiting the activity of the gonadal hormones of one sex by the administration of the gonadal hormones of the opposite sex has been employed in recent years in the treatment of human cancer. Following reports concerning favorable effects on cancer of the prostate^{2, 3} after orchiectomy and estrogen therapy, interest in the problem of hormonal alteration of cancer, especially those of the sex glands, was intensified both here and abroad.^{4, 5} After identification of the estrogens attempts to produce breast cancer were not successful until 1932. Lacassagne⁶ was the first to report the appearance of breast cancer after the injection of estrogens in male mice of a strain in which the incidence was high in the female. Many others have confirmed these results, notably Loeb⁷ in 1940 and Gardner⁸ in 1944.

It was natural in view of these results that experiments with removal of the carcinogenic hormone or the study of the effects of the antagonistic hormone would be a natural sequence. Following these reports there appeared in the literature numerous papers reporting the results of castration, estrogen therapy, and androgen therapy on the course of mammary cancer. These reports will be discussed in this paper in this order, and a summary and conclusion will be included of the results of the reported investigations to date.

EFFECTS OF WITHDRAWAL OF OVARIAN ESTROGEN

It is significant that the two primary carcinomas that are prone to metastasize to bone are those of the breast and the prostate. Riddle⁹ notes that hormones capable of producing growth of breast tissues are to be found not only in the ovary but also in the pituitary, adrenals and testes. Farrow¹⁰ in 1944 noted that there were 200 skeletal metastases in 138 patients with cancer of the breast. He noted that during the years of natural menopause (41-55) there was a noticeable decrease in the percentage of skeletal metastases, while there was a relatively high percentage that occurred in the years just before and just after the menopausal years. It was Farrow's conclusion that in the natural course of events skeletal metastases may be delayed but not prevented by the endocrinal disturbances peculiar to the menopause.

Farrow¹⁰ reported that there was temporary arrest and calcification of the skeletal metastases from the breast cancers. He came to the conclusion that one third of all premenopausal patients were materially benefited by castration. Calcification of the skeletal metastases, generally regarded as indicative of a regressive process, could be demonstrated roentgenologically in 3 to 6 months following castration. However, the duration of inhibited activity was only for a period varying from 6 to 24 months and rarely longer. In the advanced cases with associated hypercalcemia the accompanying symptoms of nausea and vomiting subsided rather quickly after castration and probably were correlated with a significant decrease in the serum calcium.

The mode of action of regression is unknown, although the vasodilating action of the estrogenic hormones may be a factor. It was theorized that the regression was due to the vasoconstriction following castration, subsequent nutritional anoxemia and abortive fibrosis. Treves et al¹¹ in 1944 reported the results of castration on 6 males with cancer of the breast. There was regression and repair in the primary lesions and secondary deposits in the bones and lungs. The testes in all cases were microscopically normal. This procedure for male breast cancer may parallel the striking effects of orchiectomy^{12, 13} for advanced cases of cancer of the prostate. The pulmonary metastases disappeared in the roentgenograms, and there was a rapid calcification in the areas of bone metastases. Relief from pain ensued rapidly, and the patient's condition improved.

Halberstaedter and Hochman¹⁴ produced artificial menopause by irradiation of the ovaries in 60 females with cancer of the breast and noted "improvement" in 56 per cent of the patients. However, it is to be noted that the authors are liberal in their use of the word "improvement" and report the case if there was any alleviation of symptoms. Bone metastases responded particularly well to the induction of artificial menopause; improvement occurred in 69 per cent of the cases; pleural and pulmonary metastases regressed in 50 per cent. Metastases to the skin and local recurrence reacted less favorably, and lymph node metastases showed little response. The best chances of improvement resulting from ovarian sterilization were found in those cases in which the tumor cells were euplastic and typical, the adenocarcinoma. The chances of improvement were far fewer in the cases in which the cells were anaplastic and atypical, the carcinoma simplex. Improvement was noted for 6 to 24 months in this investigation, and it was felt to be no more permanent, because sterilization, irrespective of case, does not completely stop the flow of ovarian hormones due to the reasons stated previously by Riddle.⁹ Beneficial results

following castration are confined almost exclusively to premenopausal patients in which various studies^{15, 16} have shown that 15 to 20 per cent of these patients with advanced, recurrent or metastatic breast cancer may benefit from castration but only for a limited time.¹⁷ Castration does not appear to be significantly advantageous when employed prophylactically as an adjunct to radical mastectomy in women whose disease is confined to the breast and regional lymph nodes. However, it is the consensus of most observers that castration should be reserved for premenopausal patients with advanced, recurrent or distal metastatic carcinoma of the breast.

EFFECTS OF ESTROGEN THERAPY ON CANCER OF THE BREAST

Loeb et al¹⁸ showed that it was possible to increase the incidence of mammary cancer in mice by long-continued injection of estrin, the effect varying with the size of the dose and with the hereditary tendency for a given strain of mice to develop cancer. Usually daily doses under 5 rat units have not raised the tumor rate. The administration of estrogens of different chemical structures and synthetic estrogenic preparations, such as diethylstilbestrol and triphenylethylene, which are not directly related to the natural compounds or hydrocarbon carcinogenic agents, produced the same effects.¹⁹ Thus it appears that any compound with the same physiologic effect can elicit the disease and that it is not dependent on any specific chemical structure of the hormone. There is a wealth of excellent experimental data in the literature on the appearance of breast cancer in male and female animals after estrogenic therapy. An editorial in the *Journal of the American Medical Association* in 1940²⁰ warned against the indiscriminate use of estrogens. Farrow¹⁰ used estrone in carcinoma of the breast with associated skeletal metastases in 3 cases. An elevation was noted in the serum calcium, due theoretically to the increased activity of the metastatic tumor in the skeletal system. The acceleration in the rate of bone destruction resulted

in flooding of the circulation by the products of osteolysis.

Haddow and his co-workers²¹ in 1944 reported 40 cases of cancer of the breast treated with various compounds related to estrin. It was their theory that many carcinogenic hydrocarbons possess the property of retarding the growth of tissues, both normal and malignant; the tumor production by these substances is envisaged as a cellular adaption to the protracted period of growth repression. The majority of patients were treated with triphenylchloroethylene. Four patients were given a compound in which the chlorine atom is replaced by a methyl group (triphenylmethylthylene) and 14 cases with stilbestrol.

A. *Triphenylchloroethylene*. Twenty-two patients were treated orally with this preparation, the average dose being 21 grams weekly and with a total up to 1,000 grams in 9 months. A proportion of the cases showed a significant although temporary retardation of the tumor growth. There was initial regression in 10 of the 22 cases, but no evidence appeared to show that the drug prevented the development of metastases. On the contrary, and this point should be emphasized, the impression was gained that the malignant cells became in time progressively more resistant to the inhibitory effects produced by the drug initially. The ultimate course of the disease was not altered in the remaining patients. In responsive patients the sequence of events has been characteristic, consisting of purplish discoloration of lesions previously red, a flattening followed by disappearance of skin nodules and ulcers, and disappearance of the large nodules and masses followed by epithelialization of the area. Biopsies made in 4 cases showed regression of the primary tumor. All were highly cellular, and thus there seemed to be a greater sensitivity to the action of the estrogen in the adenocarcinoma than in the scirrhous carcinomas.

B. *Triphenylmethylthylene*. Four patients with advanced cancer of the breast were treated for 2 months. Only 1 patient showed any response in

the form of flattening out of the lesion and the development of blue discoloration of skin nodules.

C. *Stilbestrol*. Fourteen patients were treated, the dosage varying from 1 milligram daily for 3 months orally to 660 milligrams intramuscularly over a period of 4 weeks. Five patients showed alteration of growth behavior of the tumor similar to those produced by triphenylchloroethylene. Biopsies showed diminution of mitotic rate, variations in the staining behavior, and necrotic changes. Some patients complained of nausea, pigmentation of the mammary areolae, uterine bleeding, and edema of the lower extremities.

The good results of the English workers with various estrogens in advanced cancer of the breast prompted Hermann and Adair²² of the Memorial Hospital to investigate further the therapy they reported. Seventeen patients were studied, 13 with primary inoperable cancer without previous therapy, and proved to have cancer by biopsy. All 17 were treated with a synthetic estrogenic hormone (ethynylestradiol) orally. One milligram equalled 7 to 20 milligrams of diethylstilbestrol. The dosage varied from 0.15 to 0.70 milligrams daily (equal to 1.0 to 5.0 milligrams of diethylstilbestrol). The duration of therapy varied from 2 to 11 months. They concluded that their best results were in patients over 60 years of age.

The results of this above study showed the deleterious effects of estrogens in females in a younger age group. This was markedly emphasized in a 40-year-old woman who was menstruating regularly, and when first seen her general condition was good despite a mass in the right breast. X-ray films showed evidence of the disease in the lungs, lumbar spine, and pelvis. After the institution of estrogens her condition deteriorated, and within 3 months she was bedridden, death occurring 1 month later. The rapid progress of the disease may have been the result of a specific action of estrogen or of vascular alterations on the breast by the hormone.

Both estrogens and androgens apparently exert

an inhibitory effect on cancer of the breast. The pituitary may be the common denominator. The best results obtained by Hermann and Adair²² were patients over 60 years of age. The dosages used varied, but all induced uterine bleeding that was sometimes severe in over 50 per cent of the patients. Vaginal smears in 6 patients showed well developed estrous cycle reactions. There was no change in the serum calcium, protein, or alkaline phosphatase that could be ascribed to the estrogens. A fall in the serum phosphorus level was obtained in a large percentage of cases. Nathanson²³ also noted that the administration of estrogens might exhibit striking alterations of the disease. Ulcerations of the primary tumor decreased in size and in some cases became epithelialized and the masses significantly smaller; the edema and redness of the skin decreased, and there was regression of lymph node and pulmonary metastases. The patients were in better condition generally with improvement in appetite, weight and hematopoietic activity. In contrast to androgens, favorable responses of estrogens on osseous metastases are uncommon. Again Nathanson²³ noted that the best results were in patients over 60, and that in premenopausal patients there was a suggestion that estrogens accelerated the disease.

THE EFFECTS OF TESTOSTERONE PROPIONATE

Nathanson²⁴ found that testosterone will significantly lower the incidence of spontaneous mammary cancer in a highly susceptible strain of mice. Nemirovsky²⁵ confirmed these findings and stated that the male hormone also had an analgesic effect. Farrow¹⁰ implanted testosterone in a highly susceptible strain of mice and reduced the mortality from 75 per cent in the controls to 40 per cent in the treated animals. Loeser²⁶ implanted testosterone propionate in 10 mice every 3 to 5 weeks with 12 mice as controls. In the treated group 4 and in the control group all 12 died of cancer. Gardner²⁷ had similar results. Following this experimental data reports of re-

sults on humans began to appear in literature.²⁸ The mechanism of action is assumed by Nathanson²⁴ to be brought about by the antagonism to the estrogens directly or by the inhibition of the pituitary gland which results in ovarian atrophy or both. Fels²⁹ stated that testosterone propionate produces an extraordinary proliferation of the fibrous tissue which impedes and blocks the extension of the neoplastic cells and possibly crushes them. There were no signs to show that the hormone had a direct effect on the carcinomatous cells. He reported 3 patients treated with androgens and noted subsidence of pain and vomiting and disappearance of palpable nodules. In 1 patient the disappearance of a large uterine fibroma during the hormonal therapy must be ascribed as a concomitant cure. Hermann and Adair³⁰ revealed that there were cytologic alterations in the neoplasms in the form of hydropic changes in the cytoplasm and pyknosis of the nuclei. Dosages varied from 200 milligrams of testosterone propionate twice weekly for a total of 3,200 milligrams to 200 milligrams daily. Despite the large amounts of androgens used the menses were suppressed only for 1 period following withdrawal of the androgen. Boger³¹ reported a case of a 27-year-old woman with extensive metastatic cancer of the breast. She had a bilateral oöphorectomy, was given methyl testosterone, and became an ambulatory patient. There was arrest and recalcification of the extensive skeletal metastases. The dosage was 10 milligrams of methyl testosterone 3 times daily and continued at 30 milligrams every other day. She died 1 year after surgical castration.

As stated before, skeletal metastases of mammary cancer are frequent. Some are osteosclerotic, and, although spontaneous changes from osteoclastic to osteosclerotic types are mentioned, they are rare. In the main, metastases are osteolytic, and, if they begin to sclerose or calcify, the therapy given must be regarded as the cause of the change. The usefulness of castration depends on removal of the ovaries as a source of breast-stimulating estrogens. Ablation or sup-

pression of the ovaries, especially in premenopausal women, does bring about regression of the breast cancer, but after a longer or shorter period of latency the growth of the cancer continues. Whether this is due to the growth properties of the neoplasm or to endocrinal influence is not clear.

Androgens are capable of producing medical castration, and in addition it has been claimed that androgens may have an actual neutralizing or antagonistic effect on estrogens. If this is so, the use of androgens to castrate patients and to neutralize the extra-ovarian estrogens might conceivably have certain advantages over surgical and irradiation castration. Farrow and Woodward³² observed the effects of androgen therapy on serum calcium and found that patients developed increased serum calcium levels as well as an increased output of calcium in the urine. This was sometimes accompanied by nausea, vomiting, and depression, hypertrichosis, and enlarged clitoris. Cessation of therapy for a short time was enough to stop these symptoms. It would appear that testosterone is contraindicated in patients with hypercalcemia with osseous metastases.³³ The serum alkaline phosphatase was elevated in a significant number of cases and is indicative of bone repair.

SUMMARY AND CONCLUSIONS

The history and experimental data leading to the present clinical use of gonadotropic hormones in the treatment of cancer of the breast are discussed. The results of castration, estrogen therapy, and androgen therapy are reported.

There was temporary arrest and calcification of the skeletal metastases 3 to 6 months after castration. The duration of inhibited activity was temporary, rarely lasting longer than 24 months. Best results were confined almost exclusively to premenopausal patients in whom 15 to 30 per cent were benefited although only temporarily. Castration does not seem to be significantly advantageous when employed prophylactically as an adjunct to radical mastectomy in women

whose disease is confined to the breast and regional lymph nodes.

Various forms of estrogens, both synthetic and natural, were used in the reported studies. A proportion of the patients showed a significant although temporary regression of the tumor growth (50 per cent). There seems to be a deleterious effect of estrogens on women before their menopause. Estrogen therapy is to be reserved for women after their menopause, preferably more than 60 years old. Osseous metastases are not affected.

Testosterone may be employed on female patients with breast cancer at any age. The dosage varies from 200 milligrams twice weekly to 100 milligrams by the intramuscular route 3 times weekly for a period of 8 to 10 weeks, making a total of 2,400 to 3,000 milligrams. Osseous metastases showed a remarkable response to androgen therapy. Some patients showed an initial hypercalcemia associated with toxic manifestations in response to androgen therapy, which ceased with discontinuation of therapy. Testosterone exerts a favorable though temporary effect on advanced carcinoma of the breast.

From the above summary it is to be concluded that hormonal therapy in advanced carcinoma of the breast is a valuable addition to our armamentarium. It is to be emphasized that none of the investigators have advocated hormonal therapy as a curative agent but as valuable palliative therapy in inoperable or metastatic carcinoma of the breast where surgery can be of no great aid. It is the consensus that surgery is still the treatment of choice but that hormones may be used as a valuable adjunct after radical mastectomy. Surgery, which at the present time offers the only hope of cure, has advanced to a point where the reduction of morbidity and mortality shall be in direct relationship to the speed of early diagnosis. The sooner the mass or nodule in the breast is palpated, biopsied, and removed by adequate surgery the better will be our 5- and 10-year cures. The public should be educated to have

(Continued on page 503)

AN INFLUENZA A EPIDEMIC, 1947*

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DURING an influenza epidemic among personnel at Lowry Field, Colorado, in 1947, 453 of the hospitalized patients were studied extensively. Virus cultures and serum agglutination-inhibition tests were done on material from selected cases and proved the epidemic to be caused by a new type A strain of influenza virus.† This epidemic was one of the first to involve large service populations and civilians in the United States in 1947. Efforts to trace the epidemic to bases in California and the Japan-Korea area were unsuccessful, although epidemics in the latter areas preceded that discussed here,^{1,2} and there had been air traffic between these bases.

Housing in crowded temporary-type barracks of recently inducted young soldiers apparently caused rapid spread of the infection and high incidence as compared with older soldiers, many of whom had been previously immunized and lived in permanent brick barracks with greater floor space per man (fig. 1).

EPIDEMIOLOGY

Approximately 25 per cent of the personnel on the field had been previously immunized with

standard mixed influenza A and B vaccine. An estimated 20 to 25 per cent of the total personnel (average 12,935 men during the 25-day epidemic) were infected during the epidemic here discussed.

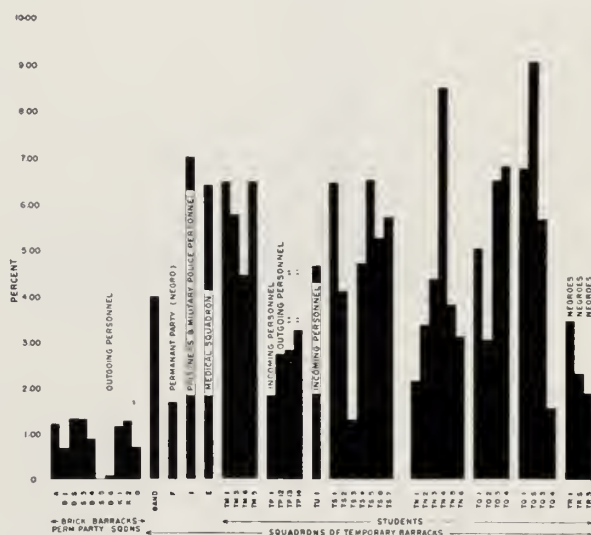


FIG. 1. Per cent of men by squadrons hospitalized between January 23 and February 15 with typical influenza.

Since all could not be accommodated in the hospital, some were treated in their quarters or in the dispensaries. Total daily hospital admissions rose from 10 per day on January 19 to a maximum of 227 per day on January 30 and dropped just as precipitously. All personnel on the field were immunized on the first and second days of February, but no effect was noted on the already declining epidemic (fig. 2). Army policy regarding vaccination for influenza³ at this time was based on evidence of numerous investigators who

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† The Division of Virus and Rickettsial Diseases, Army Medical Department, Research and Graduate School, Washington, D. C., performed the virus cultures and agglutination-inhibition tests, and the Fifth Army Laboratory, Omaha, Nebraska, performed some of the agglutination-inhibition tests on patients with atypical pneumonia before the onset of the present epidemic.

showed that vaccination gave high antibody titers in 6 to 14 days and resulted in attack rates about one third or less than that of unvaccinated controls.^{4, 5, 6, 7, 8} One group, however, did not find this degree of protection.⁹

Throughout the Army in the United States common respiratory infection rates including influenza were very low before the onset of this epidemic, with the exception of Lowry Field, Colorado, where during October, November and December, 1946, rates were relatively high (432 per 1,000 men per year for the period, November

plications occurring in this epidemic due to type B influenza were similar in type and percentage to those contained herein.¹²

Distribution of our selected cases from among the 12,935 men on the base are given in the following table:

RACE	AVERAGE ON FIELD DURING THE EPIDEMIC	SELECTED TYPICAL INFLUENZA CASES	PER CENT SELECTED AS TYPICAL CASES
White.....	11,816	430	3.64
Negro.....	768	17	2.2
Chinese.....	351	6	1.71
Total.....	12,935	453	3.50

Both Negro and Chinese troops were less crowded than the white.

Attempts to determine whether previous vaccination for influenza had affected the attack rate proved unsuccessful because of incomplete vaccination records of the soldiers. Most men with more than 1 year in service were presumed to have been vaccinated prior to 1947, but we could not determine with certainty that prior vaccination prevented infection in the present instance.

An interesting side light may be reflected in the high rate of admissions for guard-house patients and low rate for squadrons of men awaiting discharge from the Army (fig. 1).

The epidemic followed shortly after wide dispersal of most of the personnel of the field to all parts of the country for Christmas leaves. Air evacuation ships carrying sick and injured men from Japan and Korea had stopped at this base en route to other areas in the United States, but we hesitate to place significance in this despite epidemics in some of those areas just prior to the one studied here.

CLINICAL DATA

The 453 cases selected from among the hospitalized patients were evaluated and selected for typical findings of epidemic influenza. All had oral temperatures of more than 100°F. in the

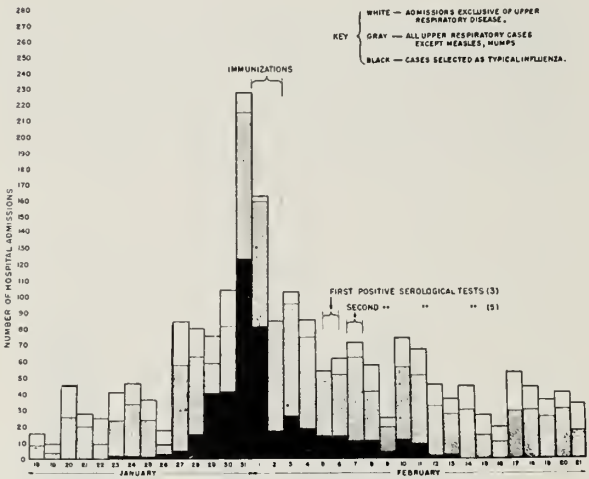


FIG. 2. Admissions to Lowry Field Station Hospital

30 to December 27).^{*2} The Rocky Mountain area has been known to have relatively high attack rates for common respiratory diseases and streptococcal infections.^{10, 11} In May, 1945 adjoining Army Air bases of Lowry and Buckley, Colorado, had a mild epidemic caused by influenza virus type B, antedating similar epidemics throughout the United States. Virus and epidemiologic studies were supervised by Dr. Jonas E. Salk, at that time of the University of Michigan Department of Preventative Medicine. The epidemic was proved by chick embryo virus cultures and paired, acute and convalescent, serum agglutination-inhibition tests of infected persons. Com-

* Annual rate equals number of admissions per week times 52 times 100 divided by average strength.

dispensaries, and all were seen on the wards by one or both of us. Any patients with exanthems or exudative pharyngitis were excluded, as were any patients who could have been considered as having only reactions after vaccination was begun. Less than one third of the total number of patients with respiratory disease were included as having typical influenza. Figure 2 shows the daily hospital admissions for all causes (total column), respiratory diseases (black plus gray) and influenza (black). Probably most of the respiratory cases not studied as typical influenza were actually cases of influenza or influenza and some other respiratory disease combined.

Over three fourths of the 453 selected cases were hospitalized after less than 3 days of illness, and only 4 per cent had had symptoms for more than 4 days. The average duration of hospitalization was 6.6 days, and the average duration of fever was 3.9 days. Maximum oral temperatures varied from 100° to 106°F., with an average of

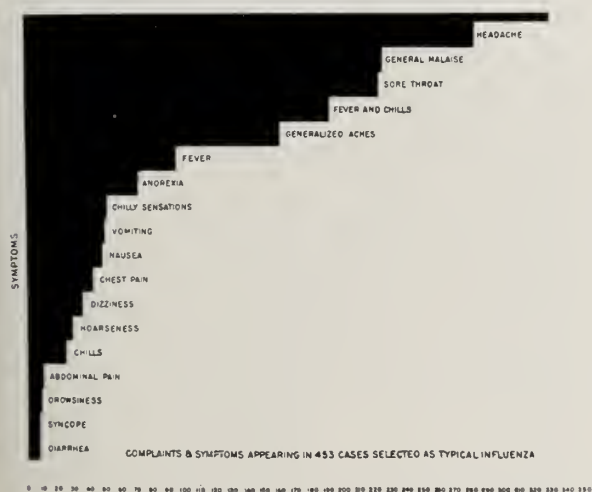


FIG. 3. Complaints and symptoms of cases selected as typical influenza.

102.2°F. A dromedary type of fever curve was seen in about 10 per cent of cases.

Symptoms most frequently found were cough, usually nonproductive; headache, usually frontal and severe; malaise; chills and fever; sore throat, and generalized aching (fig. 3). Gastrointestinal symptoms, chills or chilly sensations alone, syncope, drowsiness, hoarseness, and chest pain were

found less frequently. Most patients appeared moderately ill, but few were prostrate. There was little correlation between apparent toxicity and the temperature at entry.

Physical examination often disclosed flushed facies and inflamed conjunctivae. Weakness was often severe. Slight to moderate increase in pharyngeal redness was found in 369 patients (81.1 per cent). Exclusion of cases with exudative pharyngitis and nonspecific upper respiratory in-

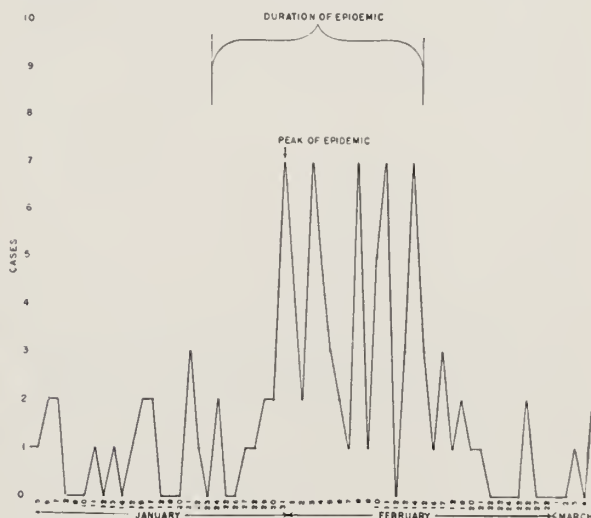


FIG. 4. Pneumonia cases by date of admission to hospital—all diagnosed by X-ray.

fection has been mentioned. Coarse râles and ronchi, usually at lung bases, were found in 79 cases (17.4 per cent), but none had physical signs of consolidation at entry.

Complications consisted of pneumonias of varying severity and the suppurative complications of acute otitis media, mastoiditis, and sinusitis. Severe glottic edema and high fever resulting in dyspnea and cyanosis occurred in 1 case. Three patients had X-ray evidence of "atypical" pneumonia at entry, and 38 other X-ray films taken of the chest at entry were normal. Fifteen other patients developed roentgenographic and clinical evidence of pneumonia while in the hospital or reentered shortly after discharge because of pneumonia (fig. 4). A total of 4 per cent of the 453 cases therefore developed pneumonia secondary

to influenza. A pure culture of hemolytic streptococcus was obtained from 1 patient with pneumonia in 3 lobes, diaphragmatic pleurisy, and a small effusion. Another had a mixed culture of *H. influenza*, *Staphylococcus aureus* (hemolytic), and beta streptococcus. Poor response was obtained first to penicillin and then to a course of streptomycin, 12 grams in 6 days, but he was discharged asymptomatic. The remainder of the pneumonias were evenly divided between those with mixed flora in the sputum with leukocytosis and those with inconclusive bacteriologic studies and normal white counts.

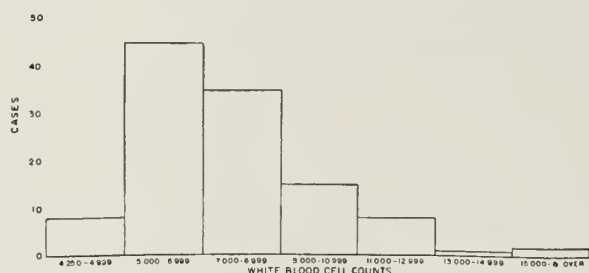


FIG. 5. White blood cell counts of 114 of the cases selected as typical influenza.

Treatment consisted of symptomatic measures in most and penicillin, sulfadiazine, or both in other cases as follows:

TREATMENT GIVEN	PENICILLIN	SULFADIAZINE	SYMPTOMATIC	PENICILLIN & SULFADIAZINE	TOTAL
Total patients treated...	97	36	317	3	453
Average highest temperature.....	102.9	102.5	102.0	103.0	102.2
Average days febrile....	4.4	4.0	3.7	7.7	3.9
Average hospital days...	7.2	7.0	6.45	12.0	6.6

Supportive therapy consisted of hydration, parenterally if necessary, diet as tolerated, and salicylates and codeine as needed to control severe aching. Penicillin was used in doses of 30,000 units every 3 hours intramuscularly; and sulfadiazine was given in doses of 4 grams initially and 1 gram every 4 hours, along with 2 grams of sodium bicarbonate. Precise conclusions as to the effect of these treatments are difficult,

but the patients with highest temperatures and greatest "toxicity" were apparently given antibiotics, and these had longer average duration of fever and longer average periods of hospitalization despite antibiotics. When secondary suppurative complications occurred, these drugs, sulfadiazine and penicillin, appeared to be effective.

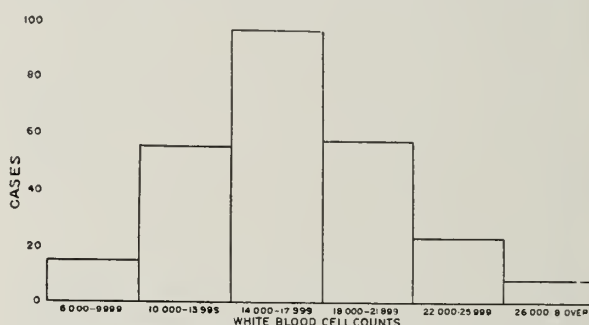


FIG. 6. White blood cell counts of 268 streptococcal nasopharyngitis cases studied October-November 1946.

LABORATORY DATA

Certain patients had routine blood and urine studies and pharyngeal cultures,* some had roentgenograms of the chest,* and others had special virus procedures. In the emergency in which maximum daily hospital admissions increased 22.7 times the initial number within a period of 11 days not all patients could have routine blood and urine studies. We felt that the laboratory work should point in two directions: (1) toward following the course of the seriously ill and those on sulfadiazine, and (2) to aid in determination of the etiologic factors of the epidemic as a whole by doing routine and special studies on unselected groups of cases. Total leukocyte counts were done on 114 of the 453 selected cases, the average being 7,700 per cu. mm.; 90 per cent of these counts were less than 11,000 and 97 per cent were less than 13,000 (fig. 5). This is in contrast to 268 cases of streptococcal pharyngitis studied at the same hospital 3 months previously (fig. 6), in which the average leukocyte count was 17,000, and 90 per cent had

* Laboratory work was supervised by First Lieutenant Joseph Perez, Sn. C., A.U.S., and the X-ray interpretations were made by Captain Benjamin Fuller, M.C., A.U.S.

10,000 or more white cells per cu. mm.¹³ Differential leukocyte counts were performed on 92 of the 453 selected influenza cases; mononuclear elements averaged 31 per cent and the polymorphonuclear 69 per cent with no shift to the left. Of the 39 pharyngeal cultures plated on blood agar 31 (80 per cent) showed no growth; alpha streptococci grew out in 2 and beta streptococci in 6. Five of the latter were sent to the Bacteriology Section of the Army Medical Center, Washington, D. C., and proved to be group A but were untypeable with the sera available. All were highly resistant to sulfadiazine in vitro.

The agglutination-inhibition tests were done on acute and convalescent samples simultaneously by the Hirst method¹⁴ with the Army Medical School variation.¹⁵ Of the 30 paired samples of serum 16 (53 per cent) showed a 2-tube (4-fold) or greater rise in titer between the sample taken in the acute phase of the disease and the sample taken in the convalescent stage, for influenza A virus. An additional seven cases had a 1-tube rise (2-fold) in titer, but this is not ordinarily considered diagnostic. Two patients had a rise in titer to influenza B, although no sera were used from vaccinated cases. These data, combined with the epidemic nature of the disease and the clinical picture, are considered diagnostic of an influenza A epidemic.¹⁶ Fifteen paired serum samples taken on a group of patients with atypical pneumonia hospitalized early in January, 1947 just before the influenza epidemic began failed to show diagnostic change in titer for either influenza A or B viruses.

Nasal washings were obtained from several patients with suspected cases and cultured in chick embryos according to accepted technics^{17, 18, 19, 20} at the Virus and Rickettsial Laboratory, Army Medical Center, Washington, D. C. From our patients and from cultures from patients at Scott Field, Illinois, and at Fort Monmouth, New Jersey, several new strains of influenza A virus "...distantly related to the standard PR 8 and Weiss strains" have been recovered.²¹ Because the influenza vaccines in use at the time of the

1947 epidemic did not appear to protect against these new strains of influenza A virus^{21, 22} the Army Epidemiological Board recommended in May, 1947 that vaccines used by the Army after that date contain 25 per cent FM 1 (the new A virus), 25 per cent PR 8 (an old A virus) and 50 per cent influenza B virus.

VACCINATION

The two lots of standard vaccine used were prepared by Eli Lilly & Company by elution from extraembryonic fluid of the infected chick embryos, formalin-killed, of equal parts A and B viruses. One cubic centimeter of the vaccine was given subcutaneously, according to a system set up by the Post Surgeon, Colonel Robert J. Platt, as soon as authorization was obtained, February 1 and 2, 1947. Patients with definite influenza were not vaccinated. Six men claiming sensitivity to eggs were not vaccinated; others claiming sensitivity were skin-tested and vaccinated when the tests gave no reaction. No deaths occurred, although 2 men died among 6,000,000 men vaccinated in the Army in 1945.²³

Vaccine reactions severe enough for hospitalization were seen in 55 men (0.5 per cent of the total strength), and about 4 times as many reactions of more mild degree were treated in dispensaries or sent to their quarters. All of these reactions 'resembled mild influenza and were of 6 to 18 hours' duration. Three severe reactions occurred; 2 were urticarial, lasting several days; 1 was a severe anaphylactic-like reaction and required emergency treatment. The latter patient had a severe allergic background. Salk prefers to speak of these reactions as due to the amount of vaccine given and sensitivity to the virus rather than as reactions to the egg protein.^{24, 25}

SUMMARY AND CONCLUSIONS

1. A moderately severe but explosive epidemic of influenza due to a distant relative of the standard PR 8 and Weiss type A viruses arose in an Air Force installation in January and February, 1947. No mortality occurred.

2. Following proof by virus studies that the epidemic was due to influenza, vaccination was begun, with no apparent effect on the rate of infection, although vaccination simultaneously elsewhere in Army and Air Force bases may have given some protection. The lack of close antigenic relationship of the 1947 virus to that used in the standard vaccine has been discussed.

3. "Seasoning" and past vaccination could not be proved to have bearing on the rate of infection among groups of soldiers, but crowded quarters seemed to give a higher rate of infection.

4. Four hundred and fifty-three cases selected as typical have been studied for symptoms, signs, laboratory data, complications and treatment.

5. Virus cultures and agglutination-inhibition tests on acute and convalescent serum samples from infected patients were used to prove the epidemic.

6. Vaccination reactions caused hospitalization of 55 of the 13,000 men vaccinated; 3 serious reactions occurred.

BIBLIOGRAPHY

- Office of Air Surgeon, Biometrics Div.: A.A.F. Month. M. Statist. Summary of Morbidity, Mortality and Hospital Data, December 1946, p. 11.
- Office of Surgeon General, War Department: Health of Army, 1946, **1**, 16, Report 06.
- War Dept. Circular No. 312, October 19, 1946; also personal communication of Lt. Col. Arthur F. Long, Surgeon General's Office, Army Medical Center, Washington, D. C.
- Members of Commission on Influenza, Boards for Investigation and Control of Influenza and Other Epidemic Diseases in the Army, Preventative Medicine Service, Office of Surgeon General, U. S. Army: J. A. M. A., 1944, **124**, 982.
- SALK, J. E., MENKE, W. J., JR., AND FRANCIS, T., JR.: Am. J. Hyg., 1945, **42**, 57.
- RICKARD, E. R., THIGPEN, M., AND CROWLEY, J. H.: Ibid., 1945, **42**, 12.
- HIRST, G. K., PLUMMER, N., AND FRIEDENWALD, W. F.: Ibid., 1945, **42**, 45.
- HIRST, G. K., RICKARD, E. R., AND FRIEDENWALD, W. F.: J. Exper. Med., 1944, **80**, 264.
- EATON, M. D., AND MEIKLEJOHN, G.: Am. J. Hyg., 1945, **42**, 28.
- Proceedings of Conference on Rheumatic Fever. Washington, D. C.: U. S. Dept. of Labor, Children's Bureau Pub., 1943, **308**, 4.
- VANRAVENSWAY, A. C.: J. A. M. A., 1944, **126**, 486.
- Lowry Field Station Hosp. M. Serv. Files: Unpublished data.
- PHELPS, E. T., VOORHEES, W. D., JR., YOUNG, E., AND TRAHAN, H.: Bull. Georgetown Univ. M. Center, 1949, **2**, 130.
- HIRST, G. K., RICKARD, E. R., WHITMAN, L., AND HORSFALL, F. L.: J. Exper. Med., 1942, **75**, 495.
- WHITMAN, L.: Bull. U. S. Army M. Dept., 1946, **6**, 777.
- A.A.F. Letter No. 25-73, Control of Respiratory Disease, October 3, 1946, p. 3.
- NIGG, C., CROWLEY, J. N., AND WILSON, D. E.: Science, 1940, **91**, 603.
- BURNET, F. M.: Australian J. Exper. Biol. & M. Sc., 1941, **19**, 281.
- HIRST, G. K.: Proc. Soc. Exper. Biol. & Med., 1945, **58**, 155.
- RICKARD, E. R., THIGPEN, M., AND CROWLEY, J. H.: J. Immunol., 1944, **49**, 263.
- SMADL, J. E.: Bull. U. S. Army M. Dept., 1947, **7**, 795.
- VANRAVENSWAY, A. C.: J. A. M. A., 1948, **136**, 435.
- LONG, A. P., LT. COL. M. C., Office of Surgeon General of U. S. Army: Personal communication, 1947.
- SALK, J. E.: J. A. M. A., 1947, **134**, 393.
- SALK, J. E.: Personal communication, 1947.

20th Annual Scientific Assembly



OF THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA

OCTOBER 17-18-19, 1949 • HOTEL STATLER

WASHINGTON — *The Nation's Medical Capital*



Medical Society Building—Night View

In recent years it has been obvious to the medical profession that Washington is well on its way to being the medical capital as well as the governmental center of the Nation. Our many advantages, including three medical schools, one of the largest municipal hospitals, the National Institute of Health, the National Naval Medical Center, the Army's Walter Reed General Hospital, the Army Institute of Pathology with its unexcelled Surgeon General's Library, and many other clinical and research facilities, make such a development inevitable.

Focusing attention on medical progress locally from year to year, the District Medical Society appropriately devotes its 20th ANNUAL SCIENTIFIC ASSEMBLY to the theme, "Washington—the Nation's Medical Capital."

Mirroring the aforementioned progress, the Scientific Program includes valuable clinical contributions by many outstanding local authorities as well as other national figures. This three-day program promises to not only meet but probably exceed the previous high standards. In the same light the Scientific Exhibit will visually acquaint those in attendance with the diverse and interesting clinical research in progress locally. The motion picture program is designed to hold the interest of both general practitioners and specialists.

The Medical Society will again be host to its members at a midday luncheon on Monday, October 17, at which a nationally known individual will speak. The Georgetown University Medical Alumni Association and the George Washington University Medical Society will hold similar luncheons on the following two days.

Aware of the boundless limits of our members' capabilities, it was decided to devote this year's special event to an exhibit of "Doctors in Sports." The response already has convinced your chairman that we have champions of sport ranging from spear-fishing to ping pong. It still is not too late for any interested member to contact the Medical Society regarding his prowess.

The ASSEMBLY closes as usual with a ringing social note. On the evening of October 19 a cocktail party in the Congressional Room will be followed by a dinner in the Presidential Ballroom.

A vote of thanks is due to various chairmen and their committee members whose diligent efforts will make this our outstanding ASSEMBLY, and it is hoped that each and every member will express his appreciation by his attendance.

GENERAL CHAIRMAN
COMMITTEE ON ARRANGEMENTS

20th Annual Scientific Assembly

SCIENTIFIC PROGRAM

ALL SESSIONS IN THE PRESIDENTIAL BALLROOM, HOTEL STATLER

MONDAY, OCTOBER 17—MORNING SESSION

SYMPOSIUM ON MEDICAL AND SURGICAL ASPECTS OF CARDIOVASCULAR DISEASE

BERNARD J. WALSH, M.D., Moderator

9:30 THE ETIOLOGY OF CORONARY HEART DISEASE

Paul Dudley White, M.D.

Clinical Professor of Medicine, Harvard Medical School;
Chief Consultant, National Heart Institute, Public Health
Service

9:55 MANAGEMENT OF CONGESTIVE HEART FAILURE

George E. Burch, M.D.

Professor of Medicine, Tulane University of Louisiana
School of Medicine

10:20 TREATMENT OF CARDIAC ARRHYTHMIAS

Samuel Bellet, M.D.

Assistant Professor of Cardiology, Graduate School,
University of Pennsylvania School of Medicine; Cardiolo-
gist, Philadelphia General Hospital

10:45 DISEASES OF THE VEINS OF THE LOWER EXTREMITIES AND THEIR TREATMENT

Robert R. Linton, M.D.

Assistant Professor of Clinical Surgery, Harvard Medical
School, Chief of Peripheral Vascular Clinic, Massachu-
setts General Hospital

11:10 QUESTION AND ANSWER PERIOD

11:30 RECESS FOR LUNCHEON

MONDAY, OCTOBER 17—AFTERNOON SESSION

SYMPOSIUM ON ANTIBIOTICS

HARRY F. DOWLING, M.D., Moderator

2:00 METHODS OF ADMINISTRATION AND DOSAGE OF THE ANTI- BIOTICS

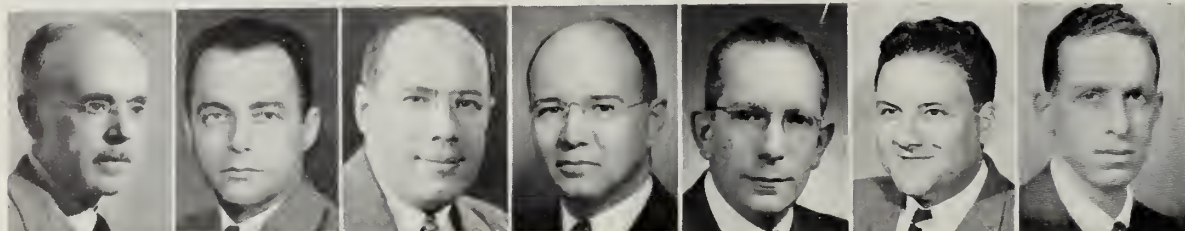
Harold L. Hirsh, M.D.

2:20 DEVELOPMENT OF RESISTANCE TO ANTIBIOTICS AND ITS APPLI- CATION

Monroe J. Romansky, M.D.

Associate Professor of Medicine, George Washington
University School of Medicine





Dr. White

Dr. Burch

Dr. Bellet

Dr. Dowling

Dr. Smadel

Dr. Homburger

Dr. Patek

2:40 THE TREATMENT OF BACTERIAL INFECTIONS WITH ANTIBIOTICS

Harry F. Dowling, M.D.

Clinical Professor of Medicine, George
Washington University School of Medi-
cine

3:00 RECESS

3:10 THE TREATMENT OF VIRAL AND RICKETTSIAL

INFECTIONS WITH ANTIBIOTICS

Joseph E. Smadel, M.D.

Scientific Director, Department of Virus
and Rickettsial Diseases, Army Medical
Department Research and Graduate
School

3:30 QUESTION AND ANSWER PERIOD

TUESDAY, OCTOBER 18—MORNING SESSION

9:30 WHAT IS EARLY CANCER?

Edward A. Gall, M.D.

Professor of Pathology, University of
Cincinnati College of Medicine

10:10 MODERN ASPECTS OF THE PHYSIOPATHOLOGY
OF CANCER

Freddy Homburger, M.D.

Research Professor of Medicine, Tufts
College Medical School

10:50 RECESS

11:00 ENVIRONMENTAL FACTORS IN ETIOLOGY OF
CANCER

Wilhelm C. Hueper, M.D.

Chief, Cancerigenic Studies Section,
National Cancer Institute, Public Health
Service

11:30 RECESS FOR LUNCHEON

TUESDAY, OCTOBER 18—AFTERNOON SESSION

2:00 DETECTION AND PREVENTION OF EARLY
CANCER

Elise Strang L'Esperance, M.D.

Director, Strang Prevention Clinic,
Memorial Hospital Center for Cancer
and Allied Diseases

2:45 RECESS

2:55 PANEL ON TREATMENT OF CANCER—HARRY
H. KERR, M.D., Moderator

—CHEMOTHERAPY

Joseph H. Burchenal, M.D.

Assistant Professor of Clinical Medi-
cine, Cornell University Medical
College; Associate of Sloan-Kettering

Institute for Cancer Research, Research
Division of Memorial Cancer Center

—RADIOTHERAPY

Richard H. Chamberlain, M.D.

Assistant Professor of Radiology, Uni-
versity of Pennsylvania School of
Medicine

—SURGERY

Alexander Brunschwig, M.D.

Professor of Clinical Surgery, Cornell
University Medical College; Attending
Surgeon, Memorial Hospital, New York
City



Dr. Hueper



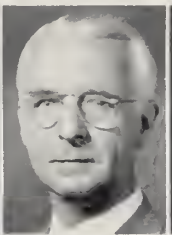
Dr. L'Esperance



Dr. Chamberlain



Dr. Brunschwig



Dr. Pratt



Dr. Herbst



Dr. Wiseman

WEDNESDAY, OCTOBER 19—MORNING SESSION

SYMPOSIUM ON ENDOCRINOLOGY

LAURENCE KYLE, M.D. Moderator

9:30 THE DIAGNOSIS AND MANAGEMENT OF
HYPOTHYROIDISM IN CHILDHOOD**Lawson Wilkins, M.D.**Associate Professor of Pediatrics, Johns
Hopkins Hospital; Attending Pedia-
trician, Harriet Lane Home for Invalid
Children, Johns Hopkins Hospital

9:55 USE AND ABUSE OF ESTROGENS

Jean Paul Pratt, M.D.Surgeon in Charge, Division of Obstet-
rics and Gynecology, Henry Ford Hos-
pital10:20 ENDOCRINE THERAPY IN PROSTATIC DISEASE
AND ITS RELATIONSHIP TO STEROIDS**William P. Herbst, M.D.**Consultant in Urology, Gallinger Munic-
ipal Hospital, Army Medical Center,
U. S. Naval Medical Center, and Vet-
erans Administration Hospital10:45 MALE HORMONE DEFICIENCIES AND TREAT-
MENT**John Eager Howard, M.D.**Associate Professor of Medicine, Johns
Hopkins University School of Medicine

11:10 QUESTION AND ANSWER PERIOD

11:30 RECESS FOR LUNCHEON

WEDNESDAY, OCTOBER 19—AFTERNOON SESSION

SYMPOSIUM ON LIVER, SPLEEN AND PANCREAS

WALLACE M. YATER, M.D., Moderator

2:00 PRESENT-DAY TRENDS IN THE TREATMENT
OF CIRRHOSIS**Arthur J. Patek, Jr., M.D.**Assistant Clinical Professor of Medicine,
Columbia University College of Phy-
sicians and Surgeons

2:30 HYPERSPLENISM

Bruce K. Wiseman, M.D.

Professor of Medicine and Assistant

Director of Medical Research, Ohio
State University College of Medicine

3:00 RECESS

3:10 NEWER CONCEPTS IN SURGERY OF THE PAN-
CREAS**Charles G. Child III, M.D.**Associate Professor of Clinical Surgery,
Cornell University Medical College

3:40 QUESTION AND ANSWER PERIOD

The Scientific Exhibit

The Scientific Exhibit to be displayed in the South American Room of the Hotel Statler will include a variety of subjects. Subjects and sponsors of the exhibits follow.

Subjects

ANGIOCARDIOGRAPHY IN CHILDREN

ANO-SIGMOIDOSCOPY AND ANO-RECTAL DISEASES

BAL IN HEAVY METAL POISONING; MEDICAL MUSEUM CONTRIBUTIONS FROM EARLY WASHINGTON PHYSICIANS

CHLOROMYCETIN IN PEDIATRIC INFECTIONS

CONGENITAL BILIARY ATRESIA

CONGENITAL HYDROCEPHALUS—NEUROSURGICAL TREATMENT

GASTROINTESTINAL OBSTRUCTIONS IN THE NEWBORN AND INFANT

LOCAL EXPERIENCE WITH ISOMETRIC PELVIMETRY

MODERN LABORATORY METHODS OF DIAGNOSIS FOR THE VIRUS AND RICKETTSIAL DISEASES

NEW RADIATION TECHNIC FOR BLADDER TUMORS

PATHOLOGIC INTERVERTEBRAL DISCS

PICTORIAL REVIEW OF SOME UNUSUAL PATHOLOGIC MANIFESTATIONS

PLASTIC AND RECONSTRUCTIVE SURGERY

POLYPS OR ADENOMAS OF THE LARGE BOWEL

SPLENECTOMY; INDICATIONS AND RESULTS IN 38 CASES, 1934-1949

SURGERY OF THE SYMPATHETIC NERVOUS SYSTEM

SURGICAL TREATMENT OF EPILEPSY

TENDON TRANSPLANT OF HAND

TUMORS OF THE PAROTID AND SALIVARY GLAND

THE VENTRICULAR COMPLEX OF THE ELECTROCARDIOGRAM

Sponsors

Bernard J. Walsh, M.D. and Frank J. Murphy, M.D., Cardiac Clinic, Children's Hospital

Jacob J. Weinstein, M.D., and Clarence R. Hartman, M.D., Department of Gastroenterology, George Washington University School of Medicine

Armed Forces Institute of Pathology

Committee on Antibiotic Therapy, Children's Hospital

Fernando R. Leyva, M.D., and Howard S. Madigan, M.D., Children's Hospital

William T. Spence, M.D., Department of Neurosurgery, Georgetown University School of Medicine

Robert J. Coffey, M.D., and Howard S. Madigan, M.D., Georgetown University School of Medicine

John W. Walsh, M.D., Georgetown University School of Medicine

National Institutes of Health, Public Health Service, Federal Security Agency

Lloyd G. Lewis, M.D., and Milton Friedman, M.D., Georgetown University School of Medicine

O. H. Fulcher, M.D., and John P. Gallagher, M.D., Department of Neurosurgery, Georgetown University Hospital

Oscar B. Hunter, M.D., Clift P. Berger, M.D., J. P. Gandy, M.D., and Warren L. Moorman, M.D., Department of Pathology, Sibley Memorial Hospital

J. Gordon Bell, M.D.

A. F. Castro, M.D., G. W. Ault, M.D., and R. S. Smith, M.D., Department of Proctology, Georgetown University School of Medicine

Adrian Recinos, Jr., M.D., Bennett Olshaker, M.D., George Maksim, M.D., and E. Clarence Rice, M.D., Children's Hospital

J. Ross Veal, M.D., John Shadid, M.D., and Thomas Duggan, M.D., Georgetown University School of Medicine

Arthur A. Morris, M.D.

Philip A. Caulfield, M.D.

Calvin T. Klopp, M.D., and Theodore Winship, M.D., George Washington University School of Medicine and Garfield Memorial Hospital

Joseph M. Barker, M.D., Georgetown University School of Medicine and Yater Clinic

Doctors in Sports

This year's special exhibit, Doctors in Sports, is perhaps the first of its kind sponsored by a state medical society. Many doctors have distinguished themselves in a variety of sports. Judging by the unusual amount of interest already shown in this project, the exhibit is certain to attract wide attention not only among physicians but the public at large. Washington newspaper sports writers and District athletic organizations are coöperating with the Medical Society of the District of Columbia in this venture. A special feature of the exhibit will be a broadcast by a nationally known sportscaster. Detailed information about this exhibit will appear in the official program.

Public Health Exhibit

The Public Health Exhibit has received such enthusiastic reception during the past two years that it is now a permanent feature of the ANNUAL SCIENTIFIC ASSEMBLY. In addition to the Medical Society of the District of Columbia, the Exhibit is sponsored by the following official and voluntary health agencies: District Health Department, District of Columbia Division of the American Cancer Society, District of Columbia Chapter of the American Red Cross, Washington Committee for Education on Alcoholism, and Hospital Service Agency of the National Capital Area. Funds contributed by these organizations have made this Exhibit possible.

The Public Health Exhibit will be shown in the Federal Room, adjacent to the South American Room which will house the Scientific Exhibit. It will be open to the general public. Visiting hours will be from 10 a.m. to 5 p.m.

Following is the list of organizations which will have exhibits on display.

Subjects

BIOLOGICAL AND MEDICAL ASPECTS OF OLD AGE
 CANCER PROBLEM TODAY
 CEREBRAL PALSY TREATMENT CENTER
 CONSERVATION OF HEARING
 DIAGNOSTIC AIDS AND BULBAR POLIOMYELITIS
 THE DRUNKOMETER
 ENVIRONMENTAL CANCER CAN BE CONTROLLED

 FOOD AND DRUG ADMINISTRATION LABORATORIES PROTECT
 THE PUBLIC HEALTH
 HEALTH SECURITY FOR THE INSECURE
 HELPING CHILDREN WITH LEARNING DIFFICULTIES
 HOW DISEASE BACTERIA ARE SPREAD
 MEDICINE IN THE ATOMIC AGE
 THE NATIONAL BLOOD PROGRAM
 REHABILITATION IN THE DISTRICT OF COLUMBIA

 SERVICES OF THE DISTRICT HEALTH DEPARTMENT
 SOCIAL SERVICE FOR THE HOSPITALIZED VETERAN
 TB—EVERY HOSPITAL'S PROBLEM
 TWO WORLDS—OR ONE

Exhibitors

George Washington University School of Medicine
 District of Columbia Division, American Cancer Society
 District of Columbia Society for Crippled Children, Inc.
 Washington Hearing Society and American Hearing Society
 National Foundation for Infantile Paralysis, Inc.
 Washington Committee for Education on Alcoholism
 National Cancer Institute, National Institutes of Health, Federal Security Agency
 Food and Drug Administration, Federal Security Agency

 Hospital Service Agency of the National Capital Area
 Remedial Education Center
 American Medical Association
 Armed Forces Institute of Pathology
 American National Red Cross
 District of Columbia Rehabilitation Service, Federal Security Agency
 District Health Department
 Veterans Administration, Social Service Division
 District of Columbia Tuberculosis Association
 Bureau of Medicine and Surgery, U. S. Navy Department

Motion Pictures

Motion pictures, most of them in color, will be shown in the District Room, which adjoins the South American Room. The complete list of films will be published in the official program. A schedule of films and time of showing will also be available for registrants at the Registration Section.

Among the films to be presented by Washington physicians and institutions are the following:

Title

BRONCHIOGENIC CARCINOMA
 TRANSCOLONIC EXCISION OF POLYP
 PATENT DUCTUS ARTERIOSUS
 TRANSORBITAL LOBOTOMY
 PRURITUS PRODUCED BY SACCULATED CRYPTITIS AND
 AMOEBIASIS OF THE CHEST WALL
 EXCHANGE TRANSFUSIONS
 SURGICAL TREATMENT OF EPILEPSY
 OPERATION FOR EXTIRPATION OF THE PELVIC VISCERA FOR
 CARCINOMA
 INSIDE THE CELL
 ROUTINE ADMISSION CHEST X-RAY IN GENERAL HOSPITAL
 CANCER: THE PROBLEM OF EARLY DIAGNOSIS

Sponsor

Brian Blades, M.D., Veterans Administration
 A. F. Castro, M.D., and Garnet W. Ault, M.D.
 Edgar Davis, M.D.
 Walter Freeman, M.D.
 Joseph Horgan, M.D.
 Oscar B. Hunter, M.D.
 O. Benwood Hunter, M.D.
 Arthur A. Morris, M.D.
 Carlton N. Price, M.D.

 Armed Forces Institute of Pathology
 District of Columbia Tuberculosis Association
 National Cancer Institute, Public Health Service, Federal Security Agency

The Technical Exhibit

The Congressional Room, immediately adjacent to the Registration Section, will be devoted to the Technical Exhibit. Registrants must enter the Presidential Ballroom, where the scientific sessions will be held, through the Congressional Room. Physicians will be given ample time to examine the booths of the forty firms who are participating. A list of the exhibitors follows:

ABBOTT LABORATORIES	(Booth 4)	MEAD JOHNSON & COMPANY	(Booth 29)
AYERST, McKENNA & HARRISON, LTD.	(Booth 1)	MERRELL, WILLIAM S., COMPANY	(Booth 6)
BEUCHLER'S	(Booth 28)	M & R DIETETIC LABORATORIES, INC.,	
BILLIUBER-KNOLL CORPORATION	(Booth 14)	SIMILAC DIVISION	(Booth 9)
BOOMHOWER, D. W., COMPANY	(Booth 31)	NATIONAL DRUG COMPANY	(Booth 2)
BORDEN COMPANY	(Booth 7)	PARKE, DAVIS & COMPANY	(Booth 36)
BURROUGHS, WELLCOME & Co. (USA),		PEOPLES DRUG STORES	(Booth 37)
INC.	(Booth 38)	PHILLIP MORRIS & COMPANY, LTD., INC.	(Booth 32)
CAMEL CIGARETTES	(Booth 24)	SANBORN COMPANY	(Booth 26)
CIBA PHARMACEUTICAL COMPANY	(Booth 17)	SANTOZ CHEMICAL WORKS, INC.	(Booth 16)
DAVIES, ROSE & COMPANY, LTD.	(Booth 33)	SAUNDERS, W. B., COMPANY	(Booth 23)
DOAK COMPANY, INC.	(Booth 11)	SCHERING CORPORATION	(Booth 40)
DOHO CHEMICAL CORPORATION	(Booth 22)	SEARLE, G. D., & COMPANY	(Booth 20)
FLEET, C. B., COMPANY, INC.	(Booth 25)	SHARPE & DOHME, INC.	(Booth 12)
GIBSON COMPANY	(Booth 3)	SMITH, KLINE & FRENCH LABORATORIES	(Booth 27)
HASKELL, CHARLES C., & COMPANY	(Booth 35)	SQUIBB, E. R., & SONS	(Booth 15)
KLOMAN INSTRUMENT COMPANY, INC.	(Booth 39)	U. S. VITAMIN CORPORATION	(Booth 13)
LEDERLE LABORATORIES	(Booth 5)	WALKER VITAMIN PRODUCTS, INC.	(Booth 21)
LIEBEL-FLARSHEIM COMPANY	(Booth 18)	WHITE LABORATORIES, INC.	(Booth 19)
LILLY, ELI, & COMPANY	(Booth 30)	WILLIAMS & WILKINS COMPANY	(Booth 8)
MAXWELL & TENNYSON	(Booth 34)	WINTHROP-STEARNs, INC.	(Booth 10)

Registration

For the convenience of members of the Medical Society, special arrangements have been made to register them prior to the opening of the ASSEMBLY. A registration desk will be staffed in the Society's Executive Offices on Friday, October 14, between 9:00 a.m. and 5:00 p.m., and on Saturday, October 15, between 9:00 a.m. and 1:00 p.m.

The Registration Section at the Hotel Statler will open at 8:30 a.m. on Monday, October 17. Visiting physicians, medical officers of the various branches of Government service, and Society members not previously registered may register and secure their badges at the Registration Section. No one will be admitted to the scientific sessions or exhibits without a badge. Invitations have also been extended to residents, interns, dentists, pharmacists, medical students, and others to register at the Hotel.

A registration fee of \$3.00 will be required of visiting physicians and non-members of the Society. Medical officers of the Army, Navy, Public Health Service, and physicians employed by the Veterans Administration and other Government agencies will be admitted without paying a registration fee.

There is always a great demand for tickets for the Medical Society's luncheon on the opening day of the ASSEMBLY, Monday, October 17. Since the Presidential Ballroom, where the scientific sessions are held, is the only room available for the luncheon, the number of tickets is limited to 500. Members planning to attend must register and secure their tickets before 1:00 p.m. on Saturday, October 15. Each Active member is entitled to one ticket without charge. Associate members and non-members of the Society may purchase luncheon tickets at \$3.50.

(Continued on following page)

Synopsis of Program

All Meetings at the Hotel Statler

MONDAY, OCTOBER 17, 1949

8:30 A.M.: Registration

9:30 A.M.-11:30 A.M.: Scientific Program

12:15 P.M.-1:30 P.M.: Medical Society Luncheon, Presidential Ballroom

SPEAKER: MAJOR GENERAL PAUL R. HAWLEY, Chief Executive Officer, Blue Cross-Blue Shield Commissions

SUBJECT: "Challenge to Medical Leadership"

2:00 P.M.-4:30 P. M.: Scientific Program

TUESDAY, OCTOBER 18, 1949

9:30 A.M.-11:30 A.M.: Scientific Program

12:15 P.M.-1:30 P.M.: Georgetown University Medical Alumni Association Luncheon, Presidential Ballroom

SPEAKER: THE REVEREND EDMUND A. WALSH, S.J., Regent, School of Foreign Service, Georgetown University, and noted authority on Russia and Geopolitics

SUBJECT: "Roots of the Cold War"

2:00 P.M.-4:30 P.M.: Scientific Program

6:30 P.M. (6:00 P.M. Cocktails): Women's Medical Society Dinner, Pan American Room

SPEAKER: DOROTHY H. ANDERSEN, M.D., Research Department in Pediatrics, Columbia University College of Physicians and Surgeons

SUBJECT: "Tumors in Childhood"

8:15 P.M.: Public Meeting, Presidential Ballroom

POLIO-1949: FACTS THE PUBLIC SHOULD KNOW

SPEAKER: ALEX STEIGMAN, M.D., Medical Consultant to the National Foundation for Infantile Paralysis

QUESTION PERIOD: HART EDGAR VAN RIPER, M.D., *Moderator*. Dr. Van Riper is Medical Director of the National Foundation for Infantile Paralysis. Leading experts will be on hand to answer questions from the audience.

WEDNESDAY, OCTOBER 19, 1949

9:30 A.M.-11:30 A.M.: Scientific Program

12:15 P.M.-1:30 P.M.: George Washington University Medical Society Luncheon, Presidential Ballroom

SPEAKER: THE HONORABLE PAUL H. CUNNINGHAM, Congressman from Iowa

SUBJECT: "Socialized Medicine"

2:00 P.M.-4:00 P.M.: Scientific Program

7:30 P.M. (6:30 P.M. Cocktails): Annual Dinner, Presidential Ballroom

SPECIAL FEATURE: Presentation of Certificates for Meritorious Service to WILLIAM JOHNSTON MALLORY, M.D., and CHARLES STANLEY WHITE, M.D., Past Presidents of the Medical Society

SPEAKER: THE HONORABLE ROBERT MURPHY, American Ambassador to Belgium
Dancing following the program until 1 A.M.

(Continued from preceding page)

Tickets for the luncheons given by the George Washington University Medical Society may be obtained at the Registration Section. Tickets for the Women's Medical Society dinner should be secured in advance from Dr. Helen Gladys Kain, 1801 Eye Street, N.W., telephone Republic 4600.

Committee on Arrangements

1949 ANNUAL SCIENTIFIC ASSEMBLY

ROBERT J. COFFEY

General Chairman

KARL C. CORLEY

Vice General Chairman

SUBCOMMITTEES

PROGRAM

STEPHEN W. NEALON, JR., *Chairman*

HARRY F. DOWLING

ANDREW A. MARCHETTI

WILLIAM D. FOOTE

R. LEE SPIRE

PAUL KIERNAN

ROBERT STOLAR

BERNARD J. WALSH

ATTENDANCE

LEONARD T. PETERSON, *Chairman*

ALLEN S. CROSS

LEON GERBER

EDWARD H. CUSHING

WILLIAM H. HANNA

KARL DORTZBACH

RAYMOND MARET

HARRY S. DOUGLAS

DUANE C. RICHTMEYER

HENRY D. ECKER

RICHARD H. SPIRE

SCIENTIFIC EXHIBIT

HENRY A. GRENNAN, *Chairman*

HAROLD L. HIRSH

ANDREW G. PRANDONI

SOL KATZ

MONROE J. ROMANSKY

JOHN W. WALSH

SPECIAL EXHIBIT

WILLIAM J. CUSACK, *Chairman*

H. FRANKLIN KREUZBURG, *Vice Chairman*

ZIGMOND M. LEBENSOHN, *Vice Chairman*

WARREN B. BURCH

GEORGE R. HUFFMAN

FREDERIC G. BURKE

DON S. KNOWLTON

M. RUSSELL EDMONSTON

JAMES P. LYONS

LEO B. GAFFNEY

JOHN H. LYONS

JAMES N. GREEAR, JR.

HOWARD P. PARKER

STAFFORD W. HAWKEN

ARCH L. RIDDICK

HAROLD HEIGES

HOWARD L. SMITH

LYNWOOD HEIGES

EDWARD B. TUOHY

JOSEPH HORGAN

J. OGLE WARFIELD, JR.

PUBLIC MEETING

PAUL F. DICKENS, *Chairman*

WALTER A. BLOEDORN

JOSEPH J. MUNDELL

HARRY H. KERR

CHARLES S. WHITE

PUBLIC HEALTH EXHIBIT

ROBERT C. RUSII, *Chairman*

JOHN E. CASSIDY

JOSEPH A. DUGAN

PETER D. COMANDURAS

CHARLES W. ORDMAN

M. NOEL STOW

SOCIAL AFFAIRS

A. MAGRUDER MACDONALD, *Chairman*

SAMUEL M. DODEK

GERALD H. MCATEER

HERBERT S. GATES

STEPHEN A. MCCARTHY

RADIO, TELEVISION & MOTION PICTURES

ALEJANDRO F. CASTRO, *Chairman*

JAMES A. GANNON

ARTHUR A. MORRIS, JR.

CHARLES F. HILL

ROBERT S. SMITH

GEORGE M. WYATT

WOMEN'S ACTIVITIES

HELEN GLADYS KAIN, *Chairman*

NAOMI M. KANOF

MARGARET M. NICHOLSON

DOROTHY JAEGER-LEE

ELIZABETH PARKER

President's Page

THE ANNUAL SCIENTIFIC ASSEMBLY

For twenty years, now, the Medical Society has presented a varied program at its ANNUAL SCIENTIFIC ASSEMBLY. The development of this function from a decidedly informal get-together to the present well-organized affair can be traced upon a yard-square piece of black satin in my study where I stick the various pins, badges and medals after the meetings are over. (A foreign lady, mistaking these for decorations, once said, "Ah! Monsieur doit être très distingué.") The oldest I can find relating to the local medical society is a plastic button made by the Sommer Badge Manufacturing Co. of Newark, N. J. and dated 1937. The committee that ordered the emblem must have had some presentiment of grandeur, since the wording "The National Clinic Center" appears below the name of the Society.

From modest beginnings in the Society's building where the scientific program, scientific exhibit and technical exhibit had sufficient room to function simultaneously, the ANNUAL SCIENTIFIC ASSEMBLY has grown to be one of the large meetings of medical men and women in this country. The growth has been the result of careful preparation by committees chosen long in advance. The ANNUAL SCIENTIFIC ASSEMBLY has had the benefit of the friendly competition of our local medical schools. It has profited from the technics of exhibition, demonstration and audition that have been developed in the past two decades. As its prestige has increased, the ASSEMBLY has been able to persuade nationally prominent investigators to tell of their researches. It has held annually an open meeting at which the problems of the doctor in his relation to the public have been discussed by layman and physician alike.

As the public has become more health-conscious, the physician has recognized his responsibilities in health education, and he has profited from discussions of all aspects of his professional and social duties. The ANNUAL SCIENTIFIC ASSEMBLY marks the high point in the contacts of the Medical Society with the interested public. This year the program promises, more than ever before, to be one in which the mutual problems of the doctor and society will be discussed. It is hoped that those participating in the discussions will point the way toward practical solution of some of the problems facing the medical profession today.

Walter Freeman

Editorials

CONSUMER-SPONSORED HEALTH PLANS

The growth of coöperatives or consumer-controlled groups for the purchase of goods or services for their members has stemmed from the hope of using mass purchasing power for obtaining these things at less cost. Chain stores purchase goods in carload lots at less than the usual wholesale price delivered to retail merchants. Coöperatives operate in the same way and also hope to improve the quality of goods obtainable.

Some years ago these operations were extended to the purchase of hospitalization and medical care, either as a branch of the activities of a larger consumer organization, or as a separate organization for this purpose. More than 170 such plans exist in 43 states today and many of these are members of the Coöperative Health Federation. An example may be found in the Health Insurance Plan of New York, the so-called "La Guardia Plan."

Some of these plans employ salaried physicians full or part time for the care of their members, while some remunerate physicians according to a fee table. All of them employ the insurance principle with certain services provided and certain limitations or exclusions. Such a group was organized in Washington about 12 years ago, under the name of Group Health Association, Inc., and it is still in existence. The majority of its physicians are members in good standing of the Medical Society.

At the time of its organization the Association was officially opposed by the Medical Society, chiefly on the ground that it would lower the quality of medical care, but also in the fear that it was proposed as an entering wedge for ultimate development of a governmental medical system.

Some members of the Society had advised against active opposition to Group Health Association, feeling it might be an experiment worth observing closely.

Now it is a fact that from the time of its inception until now a minority of the members of the Association have sought some or all of their medical care outside of the organization. It is a fact familiar to Washington physicians that the members of the armed forces and their dependents frequently go outside of the services' medical departments for care. However, the large part of the membership of Group Health Association utilizes all or a fair portion of the medical services afforded by the Association's physicians. An interesting speculation is raised as to the possible effect on the Association's costs and premium rates if all their eligibles should employ all the benefits offered.

The fundamental interest of the physician in any plan hinges around one principle, viz.: Is it so set up that it can give medical care of continuing high quality?

If physicians were required to see too many patients, quality of medical service would inevitably suffer. If the personal touch were lost, there would be decline in the mutual interest of patient and physician. If physicians were too poorly paid, the best qualified physicians would not remain interested. If, for economy's sake, there were lay interference in treatment, prescriptions or diagnostic procedures, all would suffer. If there were not sufficient incentive for self improvement of physicians, the quality of medical service would soon deteriorate. If organizations under lay control were to make a profit

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia



out of physicians' services, exploitation of both patient and physician would result.

In one of the most progressive moves of recent years, the AMA's House of Delegates in Atlantic City adopted a set of 20 principles* for the guidance of state societies in giving approval to any consumer plan seeking it. The principles relate to the points mentioned above and to quite a number of others also, among which are recommendations for medical representation on controlling boards and provision for periodic re-check of operations by the accrediting bodies.

In adopting these 20 points, the House voted that plans seeking AMA approval must come bearing the endorsement of the state or local county medical society. Dr. Dean Clark of the

* For the text of these see *M. Ann. District of Columbia*, 1949, 18, 414.

Coöperative Health Federation thereupon complained that this provision left the plans at the mercy of the societies with which they had had so much trouble already. This complaint, of course, ignores the fact that the societies had previously had no official yardstick. This writer replied to Dr. Clark: "If a plan cannot convince the local physicians that it is set up in a way to provide continuing good medical care to subscribers, maybe it should not be endorsed."

It is likely now that most of these lay-controlled plans will seek local and then AMA approval. The burden of proof as to the quality of medical care which they provide will rest upon them. The responsibility for an objective appraisal in the public interest will rest upon the medical profession.

H. P. R.

EARLY DETECTION OF DIABETES

Diabetes is known to exist without the presence of the usual classical signs and symptoms of the condition. This fact is known to all of us, in that we have experienced the surprising discovery of sugar in the urine in many of our patients on routine examination when the presenting symptoms did not lead us to suspect the presence of diabetes. Frequently sugar has been found in individuals seeking life insurance, and many times the specialist, such as the ophthalmologist, has become aware of a chronic systemic disease, possibly diabetes, in his examination of the eyes. In a number of surveys throughout the country there have been found many people who have diabetes without the usual symptoms. As a result of these studies it has been estimated that there are a million persons in this country who have diabetes and are unaware that it exists.

To discover this unknown diabetic and to bring him under treatment, care and observation of his doctor is the object of the Diabetes Detection Program of the American Diabetes Association. Your help is needed, and it is a challenge to you as a physician in your community to assist in

this program. Every county and state medical society has been requested to appoint a Diabetes Committee, and through them the profession will establish a program of Diabetes Detection within the community to discover the unknown diabetic early.

The Medical Society of the District of Columbia has established a Diabetes Committee, and this committee in association with the local affiliate unit of the American Diabetes Association will promulgate a program of Diabetes Detection in the Washington area. YOU CAN HELP. The question is frequently asked, how can I as an individual doctor assist in this great public health program? There are a number of ways, of course. Certainly you can test your own urine to determine whether you are a diabetic; you can test each member of your family; you can make a urinalysis on every new patient as a routine measure; a urinalysis on every acutely ill patient, new or old; test all obese patients and relatives of diabetics every 3 to 6 months; participate in the programs of Diabetes Detection as set forth by the county or state medical society and your

local Diabetes Association within your community. When you find even a trace of sugar in a specimen of urine, always follow this up with a blood sugar determination and always test the urine 1 to 3 hours after a full meal.

The Diabetes Detection Program of the American Diabetes Association is one of the major projects of this group. It is a program established by physicians, organized through local physician groups, and entirely conducted through the medical profession. It is a public health measure worthy of your attention, and it is a definite challenge to the medical profession to establish a public health program of its own which will do an exceedingly great amount of good in connection with a chronic disease which is absolutely controllable. Yes, doctor, there are many ways in which you as an individual physician can help.

Let us consider for a moment some of the benefits of early detection of diabetes. When a diagnosis of diabetes is established early, does this mean that the individual is incapacitated for work, play or any other activity? The answer is obviously, no. He continues his work, his usual routine of existence and need never change his mode of living. True, there are restrictions. One must of necessity be placed on a diet, and if insulin is necessary, he must use it also, but beyond these his life is that of the normal non-diabetic individual. Diabetes is not incapacitating and he does not need to stop work, does not need to stop his usual play and exercise; as a matter of fact, the latter is good for him and is advised constantly. In this respect diabetes differs from so many of the other chronic conditions. Many of these are disabling to the individual. Many produce chronic invalidism and even shorten life. This does not obtain in diabetes and does not obtain especially if the condition is found early and controlled properly. Today with the application of modern therapeutic measures the diabetic may live a normal span of life, and indeed his life expectancy today under good control is even longer than the average life

expectancy for all individuals. The dread complications of diabetes such as acidosis and coma, gangrene and infections, can be practically avoided. With early discovery, with proper control, these conditions need not occur. Indeed it is rare today in the known diabetic to see diabetic coma, and when it does occur it is frequently secondary to some acute infectious process. In the discovery of the condition early before it is in a well established or in the severe state the control so frequently can be carried out with diet alone, and the early recognition obviates so many of the once dreaded complications.

So the detection program, Doctor, is your problem. It is one of the most entrancing of public health programs that can be carried out through the organized medical groups on a large scale with results that are most gratifying. Your coöperation in the Diabetes Detection Program is desired.

The Diabetes Detection Program culminates in Diabetes Week this year from October 10 to 16, inclusive. During this week by special emphasis in newspaper publicity, lectures, demonstrations and other means, the program of early detection of diabetes will be made known to the citizens of your community. Throughout the country the Diabetes Detection Program has been inaugurated through organized medical groups, and in many sections elaborate programs have been established.

The Committee on Diabetes of the Medical Society of the District of Columbia and the affiliate unit of the American Diabetes Association together are planning a splendid program for Diabetes Week. It is asked that you take part in this program. For detailed information call upon your Committee on Diabetes or the affiliate unit of the American Diabetes Association. Your help, assistance, and coöperation are needed.

JOHN A. REED, M.D., *Secretary,*
American Diabetes Association

DISTRICT CANCER RECORD REGISTRY

The Cancer Record Registry is another tool to aid in the solution of the National Cancer Control Problem. The District of Columbia is concerned particularly with the statistical phase at present.

The statistical phase depends on the reporting system. For this reason all physicians and hospitals in the District of Columbia have been requested to report cases of cancer including Hodgkin's disease and leukemia for 1948 and 1949. With the cases reported the register is being established and will be kept up to date.

With this material, the current status of the cancer problem in the District will be evaluated. Also data for compiling the incidence, prevalence, and survival rates of cancer by site, pathologic type, and other identifying information will

be available. Follow-up requests will be sent out on each patient regularly so that the data will be complete. The death certificates of District residents will be reviewed and checked against reported cases so that any cases not reported may be included in the statistical evaluation.

The Bureau of Cancer Control of the District of Columbia plans to publish all statistical information at regular intervals. Statistical information will be available to individual hospitals concerning cases reported from their files. As the register grows, a wider use may be made of it to study existent and potential cancer facilities in addition to an epidemiologic study of cancer.

CHARLOTTE DONLAN, M.D.

*Director, District Bureau of
Cancer Control*

FROM A CONGRESSMAN TO HIS DOCTOR-CONSTITUENTS

DEAR DOCTOR:

This morning I have your letter wherein you voice your opposition to compulsory health insurance.

For your information, let me state that I wholeheartedly agree with the views you express and have gone on public record with Medical Societies in my district as opposed to any compulsory health program as suggested by President Truman and his Administration. I know compulsory health insurance will not work in this country. Through reading that I have done and from lectures heard concerning the history of socialized medicine in England, I am definitely convinced we want no such health program in the United States. You can depend on my voting accordingly.

And now, Doctor, I want to throw out a sort of challenge to you, as a member of the medical profession. The mere fact that a bill for compulsory health insurance has been introduced in the Congress and the possibility that such legisla-

tive proposal may be considered by Congress within a year or two convince me our Government, by one step after another, is moving toward socialism. The decision as to our future form of government lies, of course, with the 531 members of Congress. As long as a majority of such members oppose legislation like compulsory health insurance, everything will be fine, but already, to my notice, there are too many individuals here who apparently believe that the thing to do is have Uncle Sam be "master of all," which, in the end, will create not only national socialism, but likewise, financially wreck this country.

To my way of thinking, doctors are among the very most influential individuals in any community, since they not only work with people to cure their ills, but likewise, in many cases, they are father advisers to patients, even to family troubles, etc. Therefore, my thought is that doctors should do something about politics, meaning that they are going to have to get into politics up

to their necks whether they like it or not. Merely stating their opposition to compulsory health insurance to a few of their friends or sending the AMA \$25 to fight such proposal is not enough. In other words, doctors are going to have to go into action on the political front.

During the past several months I have made the following suggestion to various doctors who have written me, namely, that they make an agreement with all the doctors of their County Medical Associations to write personal letters to each and every patient of theirs, setting forth reasons in clear, concise manner, why they are opposed to compulsory health insurance and, in turn, asking such individuals to likewise oppose the program. In addition, I have suggested that in fairness to their Representative in Congress, regardless of his or her name, and regardless of party affiliation, the patient who receives the doctor's letter should be asked to support such member of Congress who entertains the same fundamental beliefs in opposition to compulsory health insurance as does the doctor who writes the letter. My making such a suggestion is not wholly selfish, but is expressed with the belief that the more people we can get interested in contacting members of Congress in opposition to compulsory health insurance, the quicker we can bury the whole idea.

As mentioned above, this is somewhat of a challenge to each and every doctor. The time has come when the doctor, as well as every small businessman in the country, is going to have to take off his gloves and get into the political arena, devoting some of his time, effort and money in support of individuals who hold the same belief in government principles that the doctor or small businessman does. In no other way are we going to be able to save our present form of government. That is my honest opinion.

My tenure of office, of course, is limited and no one knows how long I will remain an elected rep-

resentative of the people. When the day comes that I remain at home as a private citizen, I trust I will be able to say that I have fought a good fight toward maintaining a sound, representative form of government which has permitted the United States to be the greatest nation of all the world and that I have contributed something toward the continuance of the free, competitive enterprise system of America. I am fighting for just that and will continue to do so, but we need your help and the help of every good American citizen on the front political line if we are to change present trends and win the battles that lie ahead for America.

After you have read this letter, Doctor, I would appreciate hearing from you if you care to comment. My writing you as I have done is in all sincerity and objective in purpose, and in no way critical. I am terrifically wrapped up in this whole question of what is going to happen to our form of government and, therefore, my appeal to you as set forth in this letter.

With every good wish, I am

Yours very sincerely,

L. C. ARENDS, M.C.

Representative from Illinois

MEMBERSHIP

The following applicants for membership were duly elected to membership at the meeting of the Executive Board, August 1, 1949, in accord with Amendment XI, Section 2, of the Constitution and By-laws of the Society:

Active Members

William O. Bailey, Jr., George Washington University Hospital
John B. Brady, 900 17th Street, N.W.
Leon R. Culbertson, 1801 K Street, N.W.
Blaine H. Eig, 2616 Colston Drive, Chevy Chase, Md.
Albert D. Kistin, 2650 Wisconsin Avenue, N.W.

Associate Member

Colonel Wesley C. Cox, M.C., U.S.A., The Pentagon

In and Out of Focus

BY THE OBSERVER

The Assembly Leads the Way

From October, 1948 to May, 1949, the period which encompasses the Medical Society's organization year, Washington will be host to a number of medical meetings. The 20th ANNUAL SCIENTIFIC ASSEMBLY will lead off, to be followed in less than a month by the Association of Military Surgeons, which will meet November 7. The Interim Session of the American Medical Association is scheduled for December 6 to 9. There will be a lull during the holidays and the first months of 1950. However, on March 6 to 9, the Southeastern Surgical Congress will make its Washington debut. From April 24 to 29 the National Tuberculosis Association will hold its meeting at the Hotel Statler. One of the smaller medical meetings will be that sponsored by the Association of Surgeons of the Southern Railway, May 25 and 26. The biggest medical convention year in the Nation's Capital will come to a close with the annual session of the American Urological Association, which will be held May 29 to June 1.

Attendance at meetings of outside organizations, except for the Interim Session of the AMA, will not exceed that of the ASSEMBLY. That is also true where the actual size of the meeting is concerned, i.e., the ambitiousness of its scientific program, the number of exhibits, and the extent and variety of its activities.

In other words, the ASSEMBLY will be one of the major medical meetings to be held in Washington between now and next summer. Detailed information about the ASSEMBLY will be found elsewhere in this issue of the MEDICAL ANNALS. There is therefore no need to enlarge upon it here but it can be confidently stated that the high standard of previous years has been maintained and in some ways exceeded.

A tremendous amount of work goes into the

ASSEMBLY. The staff at the Medical Society's Executive Offices devotes eight to nine months to this project. Any one who assumes the general chairmanship of the Committee on Arrangements must also expect to devote a large part of his time to this undertaking. In fact, he cannot escape it if the ASSEMBLY is to be a success.

Dr. Robert J. Coffey, as everyone knows, is an exceptionally able physician where organization work is concerned. Despite his many responsibilities he has efficiently and faithfully discharged the duties which the ASSEMBLY chairmanship imposes. He has had the loyal support of his associates who serve in various capacities on committees which assume responsibility for definite phases of the meeting. They, too, have diligently performed their various tasks.

Neither Dr. Coffey nor those who assist him with the ASSEMBLY expect any particular credit for their efforts. They will be thoroughly satisfied if attendance during the ASSEMBLY tops previous records and if those who participate find satisfaction and enjoyment in the program and the events which have been planned for their enlightenment and pleasure.

Members who read this column are urged to spread the word among their professional colleagues whenever the opportunity offers that this year's ASSEMBLY is well qualified to lead the parade of meetings to be held in Washington in the next seven or eight months. It is, therefore, a meeting they cannot afford to miss.

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Referendum on Health Insurance

Proponents of compulsory health insurance have frequently charged that the policies of the American Medical Association are not in accord with the views of the rank-and-file of its members. The Association's leaders

have emphatically denied this, pointing to the support given its program. Nevertheless, many physicians have felt that the only satisfactory answer to this charge is definite proof that it has no basis in fact.

Several Washington physicians have expressed themselves along this line urging that in the District of Columbia a poll be taken to end any conjecture on this point. It remained for Dr. Thomas E. Mattingly to put the proposal in the form of a resolution at the Annual Business Meeting held on May 4, 1949. The resolution was adopted and immediately thereafter a ballot was prepared and mailed to the Medical Society's membership.

Members were requested to express their preference by checking one of the following:

1. I am in favor of the Administration's compulsory health insurance program.
2. I am in favor of the principle of voluntary health insurance and the extension of such coverage by all proper means, both as to numbers of persons covered and also as to the amount and kind of coverage offered, as rapidly as may be sound.
3. I am in favor of neither of the above. I recommend:

Members were also given an opportunity to express themselves on Federal subsidy.

I favor Federal assistance to the states in developing coverage under 2 (above) for the protection of the indigent and medically indigent.

The Society's Active and Life membership at the time of the referendum was 1,365. Not voting were Honorary and Associate members who numbered 316. Of the eligible voters (1,365) 918 responded. This number was considered sufficient to warrant conclusions being drawn.

Of the 918 who voted, 21 were in favor of the Administration's compulsory health insurance program, 869 stated that they favored voluntary health insurance and 28 indicated that they approved of neither. Some of the latter stated their reasons as follows:

"I favor a sort of 'free' hospital system equivalent to free public schools."

"Neither voluntary nor compulsory health insurance is desirable. I believe families with less than \$3500 income cannot get good medical care, and Federal aid to the states in developing coverage for this income group is indicated. Families should pay certain percentage of income, the rest from taxes."

"I recommend that the AMA sit down with the Administration and formulate a national health bill mutually satisfactory."

Two hundred and twenty-two indicated their approval of Federal assistance to states in developing coverage under voluntary insurance for the indigent and medically indigent. A number expressed varying views on this subject. Here is a comment by one who did not favor Government subsidy.

"I do not favor Federal assistance to the states for medical care of the indigent and medically indigent (as specified on ballot) as this infringes on state rights and the Federal Government is already far too strong."

Other views of a general nature were:

"I favor education of the public to the fact that existing facilities are adequate."

"While I favor voluntary insurance, I am still opposed to the emotional type of propaganda of which this AMA booklet (enclosed) is representative."

"I recommend Federal subsidization of medical schools, medical students, residents and interns to increase total of available medical manpower with an eye to possible health insurance in 10-15 years. My only objection to present bill is lack of medical men to take care of all the possible patients."

"It might be informative on future questionnaires to ask ex-service personnel if they thought medical standards higher (in the armed forces) than in our more competitive 'private and independent' practice."

"I recommend concerted action on the part of the medical profession to teach the people important facts of medical economics."

Medical Care Commission

The statement which follows was prepared by your Observer last spring before legislation had been introduced in the 81st Congress providing for an objective inquiry into the medical care situation. Believing that it still holds interest for the MEDICAL ANNALS' readers it is reprinted herewith:

How will the present controversy over medical care eventually be solved? This is a question to which every physician might well give thoughtful consideration. There are those—and your Observer is one—who are convinced that unless steps are taken to avert it, the present trend will lead to the adoption of politically expedient proposals which will be unsatisfactory to the people and the medical profession. It may be too late to prevent this eventuality but there is at least a chance that it can be avoided.

Before considering how this may be done, the events which led to the present situation might profitably be reviewed. It will be recalled that the now historic study made by the Committee on the Costs of Medical Care, headed by the late Dr. Ray Lyman Wilbur, was concluded in the early 1930's. While the Committee gathered much valuable data it could not agree upon its interpretation nor the steps which should be taken to meet the needs it disclosed. All agreed, however, that medical costs posed a problem which somehow must be solved.

The organized medical profession had its great opportunity at that time. The people would have followed its leadership without question. But the opportunity was not taken advantage of for a variety of reasons, the primary one being that most physicians had little interest in social and economic matters except as it related to their individual practices. They resented what they called lay interference in medical matters.

Advocates of change, many of them leaders in the social welfare field, were insistent that something had to be done to mitigate the costs of illness to the people of moderate or low income. As time passed they became more vocal and extreme in their demands. The result was that the organized medical profession became involved in a bitter controversy over compulsory health insurance which is still very much alive after 20 years.

When the present situation is compared with that of the 1930's it is apparent that both sides have gained and lost ground. The organized medical profession has made gains due to the effectiveness of the liberal forces within its ranks. Their persistence in advocating voluntary health insurance, despite the strenuous opposition of some medical leaders, was finally rewarded with success. Organized medicine gave its endorsement and during the

past few years medical prepayment plans have enjoyed comparatively rapid growth, indicating that the physicians are cognizant of their value and propose to make them successful. Not all voluntary plans are sponsored by the medical profession. There are coöperatives, industrial, and other plans through which medical care is now being made available on a prepayment basis.

In the meantime organized medicine has successfully opposed the enactment of compulsory health insurance bills which have been introduced from year to year in Congress and state legislatures. It now appears that there is no immediate prospect of the adoption of a national health insurance system.

On the other hand, there is no denying the fact that proponents of compulsory health insurance have gained ground by their persistent efforts to convince the American people of the soundness of such a system. There can be little question that the vigor with which they have sought their objective has stimulated experiments in new methods of providing medical care. It has also created wide interest in economic problems of medicine. And it must be admitted that they have won the support of many influential individuals and organizations.

Perhaps the most regrettable feature of the controversy is the bitterness which has been engendered. As a result there is little prospect of compromise at the present time. Even if this were possible, decisions arrived at would be dictated by political considerations.

Certainly medical care is too vital a matter to be disposed of in this manner. It should be removed from politics now before it is too late. The people should be assured that their interests will receive first consideration; that they will be the primary beneficiaries of any change in providing medical service; and that the waste of manpower and money used for propaganda purposes on both sides of the controversy will be put to better advantage.

Congress should be asked to create a bipartisan body such as was done when the Hoover Commission came into existence. Appointments to what might be designated the Medical Care Commission should be made by the President. He should be asked to give due regard to open-mindedness on the subject of medical care of those selected to serve. In other words, they should not be individuals who have been leaders in the present controversy. The Commission should promptly institute a thorough investigation of the medical care situation in the United States; familiarize itself with systems in various parts of the world; and develop a program suited to the needs and conditions in this country. The best technical assistance should be made available to the Commission which should avoid prematurely stating its views or supporting any cause, but endeavor to ascertain facts and present them with its recommendations.

Only in this manner will the people obtain unprejudiced facts about medical care. At the present time they are understandably confused by charges and countercharges and unsubstantiated claims.

Some to whom this plan has been mentioned believe that the proposal is too idealistic, that there will be suspicion on both sides of the controversy, or that the Commission will be packed. However, the more practical political leaders whom your Observer has interviewed take a contrary view. They sincerely believe that this matter should be taken out of politics until an objectively developed program has been drafted. Senators and Congressmen are now in a difficult position. On the one hand, great pressure is being placed upon them by the Administration, labor organizations and others who favor compulsory health insurance; on the other, medical groups and those who align themselves with them are equally insistent that Congress vote against this proposal.

The objection will undoubtedly be raised that this is only a method of delaying action by Congress. Your Observer has no such thought in mind. However, he firmly believes this is a subject which should be explored with the greatest care and without bias. And so it is suggested that a bipartisan, nonpolitical group thoroughly investigate the medical care situation with the best technical assistance obtainable and that all controversial elements be eliminated in an effort to get at the facts.

It is to be hoped that this proposal will win favor and that steps will be taken promptly to deal objectively with this very important issue. Failure to act now may jeopardize the quality of medical care in this country.

Upon the completion of the above statement your Observer read it to several individuals in whose judgment he has great confidence, including a newspaper publisher, a physician who is well informed in regard to the social aspects of medicine, and two Congressmen, both physicians. One of these was Congressman A. L. Miller of Nebraska. Your Observer was surprised to learn that Dr. Miller had just introduced a bill providing for a bipartisan investigative body to study the various aspects of medical care. A short time thereafter the so-called Republican National Health Bill was introduced by Senator Ralph E. Flanders, of Vermont, and Senator Irving M. Ives of New York. Among other things this bill provides for the creation of a Federal Health Study and Planning Commission which would be composed of an equal number of individuals appointed by the President of the

United States, the President of the Senate, and the Speaker of the House, four appointees to be made by each, two of them from private life. The major political parties were to be equally represented.

In the light of these developments, publication of the statement which your Observer prepared may seem superfluous. However, it may be of some value in emphasizing the need which still exists for an objective study of the medical care situation. Neither of the bills mentioned has become law and there is no likelihood of their being enacted by the 81st Congress.

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“... a Two-Edged Sword...” It would be surprising indeed if your Observer had not learned something about newspaper publicity during his twenty years in medical organization work. He is, of course, aware that he still has much to learn, but at least he has acquired knowledge which has proved helpful in many situations.

Experience has, among other things, taught him that where medical organizations are concerned, so-called good newspaper publicity does little to enhance their prestige unless it is based on solid accomplishments or facts of real public interest. On the other hand, critical comment need not necessarily have an adverse effect on public opinion. Even if it does, physicians can be consoled by the fact that nothing is as perishable as news. Tomorrow's headlines erase the previous day's news from the memory of all except a minority of readers who are, for one reason or another, directly interested in a specific news report. In this connection it is surprising how many favorable medical news articles go unnoticed by physicians while critical ones are seldom missed.

Lest he be misunderstood, your Observer wishes to make it clear that he knows only too well that a consistently bad press can do real damage to an organization's prestige. Likewise favorable publicity on a subject of wide public interest can be what Dr. C. Charles Burlingame, President and Psychiatrist in Chief of the Insti-

tute of Living at Hartford, Connecticut, calls "a two-edged sword." The field of psychiatry, he points out, is more highly publicized than it has been at any previous time. But has it been a good thing from the public relations and public education standpoint?

"When psychiatrists emerged from comparative obscurity a few decades ago," Dr. Burlingame observes in his annual report to the Institute's Board of Directors, "they had high hopes as to what could be accomplished for and by their specialty in the sphere of public relations and education. Great plans were made to present psychiatry in a dignified, ethical way as a new branch of medicine. Their objectives were to awaken the people to the long-neglected needs of the mentally ill, and to establish psychiatry on an enduring basis to work with the rest of medicine in attacking disease as a whole.

"At the present time, the 'good' publicity is so outweighed by the 'bad' that unless we act decisively, it looks as though those plans might become little more than the stuff dreams are made of. At the moment, however, we are in the midst of no dream. We have arrived at a veritable nightmare of psychiatric 'thrillers' blaring from the radio, and psychiatric spectacles splashed across film screens, as well as over pulp magazines and some of the better publications on the market.

"More than ever before, the emphasis is negative—on mental disease, rather than on mental health—actually creating anxiety while aiming to cure anxiety. If there were some consolidated, organized effort to convince people that they are on the very brink of an emotional breakdown, from which only psychiatry can snatch them back, a more complete coverage could not be hoped for.

"While the field of psychiatry itself may not be responsible for the situation that has developed, our work is seriously affected. Therefore, our responsibility is to raise our voices in protest, and to see that it is corrected.

"Regardless of where the responsibility rests, the facts are that hordes of people are being given the impression that they need the services of psychiatrists; they are then being advised that the shortage of psychiatrists makes it quite impossible for them to get psychiatric help. They are being warned that one out of twenty or twenty-five persons will wind up in a mental hospital; they are then being presented with the terrifying picture of the horrible conditions in mental hospitals. We have every right to ask if this over-all situation is not creating an anxiety that cannot be easily liquidated.

"The obvious query is whether or not this picture is being drawn according to our teachings of good mental hygiene. The answer is equally obvious. Something should be done to stop this onslaught of injudicious publicity, or

at least to disidentify it from scientific psychiatry. Otherwise, the danger is that emotional instability will be increased, and psychiatry will find itself merged in the public mind with charlatanism, cultism, and metaphysics, eventually ending up with the problem of convincing the public that scientific psychiatry is not what the American people so glibly refer to as a 'racket'!"

Later in his report, Dr. Burlingame says that "there is far more to good public relations than merely grabbing haphazardly at every publicity opportunity that comes along. Publicity is a two-edged sword; publicity accidents are as common as publicity successes. Therefore, it is well for us to proceed with great caution in full realization of the dangers inherent in over-popularity."

"Of course," Dr. Burlingame continues, "we should not aspire to dictate the policies of the press, radio, and other avenues of public information and entertainment. However, members of the press and any other reputable persons seeking information for the purpose of public enlightenment have always found a welcome here. I believe firmly that one of our strongest, surest public relations tools lies not in selling ourselves and our specialty to those agencies, but in cooperating in their preparation of helpful, factual presentations. While they do not operate to further psychiatry, they certainly operate in the best interests of the public, and I have yet to meet one of their representatives who is not anxious to get the facts and to present them accurately. Also, I have yet to have the experience of their deliberately violating my professional confidence or deliberately exploiting my good intentions to undesirable purposes.

"Existing circumstances do force us to attack the 'horror' stories which are leaving a large share of the public with the erroneous idea that nothing good or decent has been done in any public psychiatric institution for the past fifty years. This is not only untrue, it is unfair to the friends and relatives of psychiatric patients now in those institutions, and it is unfair to the fine persons who literally have devoted their lives to caring for those patients.

"Because the impression is being created that public psychiatric institutions are teeming with callous, brutal nurses and disinterested, ruthless doctors, those in charge of state hospitals are finding it increasingly difficult to secure personnel. Many nurses, for instance, are hesitating to become associated with a group in such ill repute, and even the finest public psychiatric institutions are finding themselves embarrassed because of the extensive publicity given the sordid side of the picture.

"It is equally unfair to paint the horrible conditions of state hospitals in the worst possible light, and then in comparison to show what good care can be at one hundred to two hundred dollars a week. There is not the slightest chance that organized society will in the reasonable future appropriate one or two hundred dollars a week for the care of a single patient, regardless of what his illness may be, nor is there any sense of fair play in implying that care at that cost is what every psychiatric patient needs.

"Such an impractical comparison only puts a weapon in the hands of those groups who oppose improving conditions in public psychiatric institutions. It justifies past failures to reach such high goals with public funds, and provides an excuse for not implementing practical improvement now or ever.

"We must ask ourselves if the efforts to arouse the public have gone out of balance. It is an exacting task to hit the fine balance of arousing the public to its neglected responsibilities, at the same time leaving the equally honest impression that there are also good public institutions with earnest personnel who are doing fine work. I believe we must ask ourselves whether that balance is being hit, or a bad matter is being made worse.

"To repeat, publicity is a two-edged sword. There is every possibility, and for that matter, already a great deal of evidence, that psychiatry can be so over-emphasized, over-stated, over-claimed, and over-popularized that our field is placed in the class of providing public misinformation.

"Recently a syndicated newspaper column carried a story that is a particularly distasteful example of how harmful publicity and popularity can be. The nationally published news item disclosed the fact that a famous movie actress had had her dog psychoanalyzed because at a style show the animal had been restless and unable to concentrate on what was new in the world of women's clothing. The article went on to tell that the dog's condition had been diagnosed as an anxiety state!

"We may be becoming popular, but I doubt very much if that type of popularity will contribute to identifying psychiatry as a whole or psychoanalysis in particular with the sound, realistic fundamentals of medicine and the other sciences. It identifies us instead with some brand of faddists who are exploiting the public fancies.

"It is absolutely necessary for us to be conservative and modest in all of our public statements. Over-emphasis and over-claiming are inevitably followed by loss of public confidence and respect, which often as not manifests itself in ridicule and satire. Symptoms are already evident that such a reaction to psychiatry is setting in—listen to your radio almost any evening, glance at the cartoons in almost any magazine or newspaper. I might

add that public confidence and respect are far more easily gained than regained.

"It has been said that to be talked about and joked about are all to the good. One automobile manufacturer often told how he manufactured jokes about his own product to capture public attention. That is all very well. Jokes may have increased his sales, but we are not selling a product.

"A campaign of ridicule about mental disorders does not indicate a growing public confidence in psychiatry any more than a campaign of jokes about cancer or tuberculosis would show public confidence in those branches of medicine. The ridicule being aimed at psychiatry is only one indication of the need for reeducating the public about psychiatry as an enduring, scientific branch of medicine."

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"... an
Economic
Slave . . . " Among those who have voiced their concern over the trend toward paternalism in this country are leaders who can hardly be called reactionary. Last spring, General Dwight D. Eisenhower, President of Columbia University, sounded a warning when he addressed a group of students. He said:

"There is a kind of dictatorship that can come about through a creeping paralysis of thought, readiness to accept paternalistic measures by the Government, and along with those paternalistic measures comes a surrender of our own responsibilities and, therefore, a surrender of our own thought over our own lives and our own right to exercise our vote indicating the policies of this country."

Some weeks later, former Secretary of State James F. Byrnes spoke to the graduating class of Washington and Lee University, Lexington, Virginia. Most of his address was devoted to foreign affairs but in his concluding comments he turned his attention to domestic affairs. Many of our people, he said, believe in "second-hand thinking" and "find it easier to ascertain and adopt thoughts of others than to think for themselves."

"Every segment of society," he observed, "is demanding special privileges—the farmer wants higher prices, the wage-earner wants increased wages, pensions, and hospitalization. Too many people want more pay for less work. We are going down the road to statism. Where

we will wind up, no one can tell, but if some of the new programs seriously proposed should be adopted, there is danger that the individual—whether farmer, worker, manufacturer, lawyer, or doctor—will soon be an economic slave pulling an oar in the galley of the state.

"Unfortunately each political party tries to out-promise the other. Some people even go so far as to say that it is unsocial to save. They want to lean upon the state, yet the state has to lean upon each one of us.

"Too many people are trying to transfer power to government. That is justified in war but not in peace. In time of peace the state must exist for the individual and not the individual for the state. Power once transferred to government is difficult to recover. Power intoxicates men. When a man is intoxicated by alcohol he can recover, but when intoxicated by power he seldom recovers.

"We are not only transferring too much power from the individual to government but we are transferring too many powers of state governments to the Federal Government.

"We should not have the Federal Government regimenting our lives from the cradle to the grave.

"Some of the proposals now suggested which would curtail the liberties of the people are offered in the name of public welfare and are to be made possible by Federal aid. That phrase is an opiate. It is deceptive. It leads people to believe that Federal aid funds come from a Christmas tree. The truth is there are no Federal aid funds except those taken from your pockets. If the people generally will ever come to understand this, there will be less demand for Federal aid.

"Beware of the Greeks bearing gifts. Beware of those who promise you something which does not belong to them and which can be given to you only at your own expense or the expense of another who may not produce to make the promise good.

"The states may have failed to make adequate expenditures in some fields. That does not justify the transfer to the Federal Government of powers it was never intended to exercise. In every state there has been increased expenditures for welfare purposes. Give the states a chance.

"If the Congress, instead of seeking new ways to spend the money which is being collected from the people, would repeal some of the excise taxes, the states could then levy additional taxes in that field. They could provide for many worthy causes and still leave the people with more money and more liberty.

"In the days ahead of us, there will be a struggle between those who believe in individual freedom and those who would subordinate the individual to the dictates of government. There will be a struggle, too, between those

who would transfer even greater powers to the Federal Government and those who would stand by the Constitution in its reservation of powers to the states."

This is undoubtedly the most vital issue which this generation of Americans must resolve and one in which physicians in common with all other citizens have a big stake.

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Doctors and Voluntary Health Agencies

In one of his typically friendly letters to your Observer, Ray H. Everett, Executive Secretary of the Social Hygiene Society of the District of Columbia, recently wrote: "It seems to me that the major contributions made by M.D.'s to the local and national voluntary health agencies sometimes are overlooked in inventorying their asset value to the public."

To this letter your Observer replied that he proposed to comment on this observation in his column.

Mr. Everett came back with this: "I would make a good editorial thesis at that! Thinking merely of my own field, I recall with pride and pleasure such greats of the medical world as Drs. Ray Lyman Wilbur, Hermann M. Biggs, William H. Welch and Edward L. Keyes—all of whom were presidents of the American Social Hygiene Association; and, locally, as presidents of our Society, the M.D.'s have contributed Drs. William Alanson White, Henry H. Hazen, William P. Herbst, et al. And, of course, in TB, cancer, heart, sight and hearing conservation, mental hygiene, and numerous other voluntary-agency fields you find physicians constantly in the vanguard of leadership and counsel."

Reflecting further on this matter, your Observer recalled many Washington physicians with whom he had been associated in the past ten years who had given unstintingly of their time to community health groups without thought of reward. For example, Dr. Herbert P. Ramsey, as Chairman of the Washington Metropolitan Health Council, worked tirelessly for many months to

CALENDAR OF MEETINGS

August 1	Executive Board Board of Censors
August 9	Medical Officers' Reserve Units
August 12	Committee on Scientific Exhibit, Annual Scientific Assembly
August 15	Program Committee
August 18	Subcommittee on Mental Health
August 19	Committee on Cancer Control
August 22	Executive Board
August 23	Subcommittee on Attendance, A.S.A. Medical Officers' Reserve Units
August 26	Committee on Public Health Exhibit, A.S.A.

bring about better health conditions in the metropolitan area. It was largely due to his leadership that an extensive health survey was made which will be a guide to those seeking to improve conditions for many years to come. He did not realize all that he expected when he assumed the chairmanship but his leadership in this undertaking has left a deep impression on the community life.

Dr. Oscar B. Hunter, who is indefatigable in his labors for the medical profession, has made many contributions to the health betterment of Washington through his participation in voluntary health agencies. At present he is the driving force in the Washington Committee for Education on Alcoholism, a division of the Yale Plan on Alcoholism. His professional responsibilities are of such great variety and so appalling in number that one would think he would have little time for civic activities. But, fortunately, he always does.

Some years ago—before World War II, as a matter of fact—Dr. Thomas E. Mattingly devoted himself unselfishly and with good effect to the cause of the Washington Self-Help Exchange so that the less fortunate might receive adequate medical care. Dr. John A. Reed has given and is giving inspiring leadership to the Diabetes Association of the District of Columbia. He, like Dr. Hunter, possesses tireless energy and is a fountain of ideas. Dr. Winfred Overholser, now the Chairman of the Health and Hospital Section

of the United Community Services, has devoted much time and effort to community service since he came to Washington. His wise counsel is greatly in demand by voluntary health organizations in the District of Columbia.

Dr. H. H. Kerr has given outstanding service to the District of Columbia Division of the American Cancer Society ever since its organization; Dr. Darrell C. Crain has been the guiding spirit of the District of Columbia Rheumatism Society; Dr. B. W. Leonard was for several years a devoted worker in the Washington Heart Association; Dr. Arthur C. Christie has headed up numerous civic groups, among them the Health Committee of the Washington Board of Trade, of which Dr. R. Lyman Sexton was also chairman; Dr. J. Ross Veal, now President of the Washington Heart Association, has for many years been the Society's representative to the Federation of Citizens' Associations along with Dr. Richard T. Sullivan. Dr. Margaret M. Nicholson has for a long time given much of her time to such institutions as Florence Crittenton Home, Christ Child Convalescent Home and Children's Country Home.

Other physicians who come to mind as having been active in voluntary health agencies and lay groups interested in health are Drs. J. Winthrop Peabody, Edgar P. Copeland, Joseph S. Wall, Henry C. Macatee, Frank D. Costenbader, George W. Creswell, Paul F. Dickens, A. Magruder MacDonald, James J. Feffer, A. Barklie Coulter, James A. Gannon, Walter H. Gerwig, A. Claggett Gray, Custis Lee Hall and Bernard J. Walsh.

This list is by no means complete. There are undoubtedly many others who have rendered outstanding service but who, for no other reason than your Observer's faulty memory, are not included.

While physicians deserve no more recognition than other citizens for their public service, their participation should at least be better known than it is.

T. W.

TELEPHONING NARCOTIC PRESCRIPTIONS*

In a published warning to druggists, H. J. Anslinger† cautions them against filling prescriptions for narcotic drugs in response to telephoned orders. The point is clearly made, however, that, while the law applies equally to the physician and the druggist, the primary responsibility rests with the physician.

Although they can and should refuse to fill telephoned orders for narcotic drugs, many druggists continue to fill such requests in a desire to accommodate their physician customers. The fact that in most instances the physician has no intention of violating the law or implicating the druggist in a violation does not lessen the offense. In fact, it only makes it easier for a deliberate offender to secure narcotic drugs and also tends to make the druggist less wary of telephoned orders from addicts or suppliers of addicts who represent themselves as physicians.

The indiscriminate telephoning of such orders has resulted in a real problem of diversion of narcotic drugs to addicts. Rather than risk antagonizing a physician, druggists have accepted telephoned orders to deliver narcotic drugs to patients who are actually addicts and who have pretended to be physicians over the phone for the purpose of obtaining supplies of drugs to satisfy their addiction.

For their own protection and that of the druggist and to comply with the definite provisions of the

Federal Narcotic Law and the Uniform State Narcotic Act, the physician should not only avoid telephoning orders for narcotic drug prescriptions, but should also be sure to execute such prescriptions properly.

In order to be sure that he is not an accessory to violations of the Narcotic Law, the physician should observe the following precautions:

1. Write and sign all prescriptions for narcotic drugs.
2. Date and sign all prescriptions for narcotic drugs on the date issued and include full name and address of patient and name, address and registry number of the practitioner. Prescriptions should be typed or written with ink or indelible pencil; if typewritten, they should be signed by the doctor.
3. Issue prescriptions for narcotic drugs for legitimate medical purposes only; do not issue orders to provide an addict or habitual user of narcotics with drugs for his use.
4. Do not use a prescription form to obtain narcotic drugs for general office practice. Official order forms are available for this purpose from a qualified manufacturer or wholesale dealer.
5. If a genuine emergency exists, the physician may telephone an order for narcotic drugs but should always supply the druggist with a properly executed prescription at the time the delivery is made.

A. E.

* Reprinted from *Postgraduate Medicine*, 1949, 6, 79.

† U. S. Commissioner of Narcotics.

CORRESPONDENCE

DEAR DOCTOR YATER:

The American College of Radiology views with alarm and dismay all proposed programs relating to the distribution of medical services which place the diagnostic aspects of medicine in a category apart from the general practice of medicine.

The convening of the 81st Congress brought forth a number of legislative programs so worded. Examples are: S. 5, the original Wagner-Murray-Dingell bill; S. 1679, the Thomas-Murray-Dingell bill; S. 1106, the Lodge bill; S. 1456, the Hill bill; and S. 1907, the Flanders-Ives bill. The treatment of diagnostic medicine under these legislative schemes has varied all the way from pin-point socialization under S. 1106 and classification as a hospital service in S. 1907 to socialization in common with all of

medicine but under the separate category of "Auxiliary Services" in S. 5 and S. 1679.

In addition to this legislation not a few prominent members of the medical profession have recently promulgated similar plans emphasizing a difference in what they have termed "the practice of the diagnostic specialties" and the practice of medicine. The American College of Radiology is most disturbed by these medical spokesmen in that they have apparently seen in the socialization of diagnostic medicine relief from demands for socialization of all medicine. Theirs is a tragic error. The medical profession and most of the rest of the Nation have come to understand that medicine cannot and will

(Continued on page 504)

DISTRICT OF COLUMBIA COMMITTEES AND NATIONAL COORDINATORS for the INTERIM SESSION OF THE AMERICAN MEDICAL ASSOCIATION

Washington, D. C., December 6-9, 1949

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INFORMATION AND REGISTRATION: Dr. Robert H. Groh

GENERAL MEETING: Dr. R. Lomax Wells

WOMEN PHYSICIANS: Dr. H. Gladys Kain

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COORDINATORS AND SUBCHAIRMEN

For Six Units (half-days)

SUBJECT	COORDINATOR	SUBCHAIRMAN
Diabetes	Dr. Howard Root 81 Bay State Road Boston 15, Massachusetts	Dr. John Reed 1720 Connecticut Ave., N.W. Washington 9, D. C.
Problems of Delivery	Dr. W. F. Mengert 2211 Oak Lawn Avenue Dallas, Texas	Dr. John L. Parks George Washington Univ. Hosp. Washington 7, D. C.
Pediatrics	Dr. Julius Hess 104 S. Michigan Blvd. Chicago, Illinois	Dr. Harold Hobart 5402 Connecticut Ave., N.W. Washington 15, D. C.
Laboratory Diagnosis, including Exfoliative Cytology	Dr. Frank W. Konzelman Atlantic City Hospital Atlantic City, New Jersey	Dr. H. H. Lefler Providence Hospital Washington 3, D. C.

Physical Medicine, Rehabilitation and Fractures	Dr. Frank W. Krusen Mayo Clinic Rochester, Minnesota	Dr. Charles S. Wise George Washington University Washington 5, D. C.
Virus, Rickettsial Diseases and Obscure Fevers	Dr. Hobart Reimann Jefferson Medical College Philadelphia, Pennsylvania	Dr. Norman Topping U. S. Public Health Service Bethesda 14, Maryland
Diseases of the Chest	Dr. J. A. Myers 730 LaSalle Building Minneapolis 2, Minnesota	Dr. J. Winthrop Peabody 1746 K Street, N.W. Washington 6, D. C.
Fluid Balance in Cardiac and Renal Failure, in Traumatic Shock and in Nephritis	Dr. Robert Elman Washington Univ. School of Medicine St. Louis 10, Missouri	Dr. Donald Stubbs 1815 Eye Street, N.W. Washington, D. C.
Neurology and Psychiatry	Dr. C. Charles Burlingame 200 Retreat Avenue Hartford 2, Connecticut	Dr. Zigmond M. Lebensohn 1712 Rhode Island Ave., N.W. Washington 6, D. C.
Cardiovascular Disease, including Hypertension and Peripheral Vascular Disorders	Dr. E. Cowles Andrus 24 East Eager Street Baltimore 2, Maryland	Dr. Clayton B. Ethridge 915-19th Street, N.W. Washington 6, D. C.
For Three Units (half-days) Cancer	Dr. Brewster Miller 47 Beaver Street New York, New York	Dr. Roger M. Choisser George Washington University Washington 5, D. C.
Poliomyelitis	Dr. Hart E. Van Riper Nat'l. Foundation for Infantile Paralysis 120 Broadway, New York	Dr. Lewis K. Sweet Gallinger Municipal Hospital Washington 3, D. C.
Hematuria	Dr. H. L. Kretschmer 122 S. Michigan Avenue Chicago, Illinois	Dr. Lloyd G. Lewis 915-19th Street, N.W. Washington 6, D. C.
Arthritis		Dr. Darrell Crain 1150 Connecticut Ave., N.W. Washington 6, D. C.
Dermatology and Syphilology	Dr. Donald M. Pillsbury Univ. of Pennsylvania School of Medicine Philadelphia 4, Pennsylvania	Dr. Frank Eichenlaub 1835 Eye Street, N.W. Washington 6, D. C.
X-ray Diagnosis		Dr. Aubrey O. Hampton Garfield Memorial Hospital Washington 1, D. C.
Liver Disease and Jaundice		Dr. O. Benwood Hunter 915-19th Street, N.W. Washington 6, D. C.
Chronic Diarrheas	Dr. Albert J. Sullivan Ochsner Clinic New Orleans 15, Louisiana	Dr. M. W. Perry 1150 Connecticut Ave., N.W. Washington 6, D. C.

News and Personals

The International College of Surgeons, United States Chapter, will hold its 14th Annual Assembly and Convocation in Atlantic City, New Jersey, November 8-12, 1949. Dr. Curtis Lee Hall, of Washington, D. C., President of the Chapter, will preside at the opening session.

Eminent surgeons from the United States and abroad (see list of speakers on page ix of this issue of the ANNALS) will present papers in the scientific sessions, covering subjects in the fields of general surgery, eye, ear, nose and throat surgery, gynecology and obstetrics, urology, and orthopedic, thoracic, plastic and neurological surgery. Two District Medical Society members will appear on the scientific program, Dr. Hall and Dr. James W. Watts.

Over 500 surgeons will be received as Associate Fellows and Fellows of the International College at the Convocation ceremonies to be held in Convention Hall, November 10. Preceding the Assembly, special surgical clinics will be held on Monday, November 7, in Philadelphia hospitals.

All doctors of medicine interested in surgery and its advancement are invited to attend; programs will be mailed upon request to Dr. Arnold S. Jackson, Secretary, 1516 Lake Shore Drive, Chicago, Ill. For hotel reservations, physicians should address Dr. David B. Allman, General Chairman of the Assembly, c/o Haddon Hall, Atlantic City, New Jersey.

The Third Inter-American Congress of Radiology will be held in Santiago, Chile, November 11 to 17, 1949. Radiologists who plan to attend the meetings should communicate at once with Dr. James T. Case, Regional Secretary for the United States, Room 1421, 55 East Washington Street, Chicago 2, Illinois.

The American College of Physicians has arranged eight postgraduate courses for the fall of 1949. The first, on Cardiology, was held, August 15-26, in Mexico. The following courses will be sponsored during October, November and December:

No. 2. Gastroenterology (October 10-14). Dr. Walter L. Palmer, Director; University of Chicago School of Medicine, Chicago, Ill.

No. 3. Clinical Neurology (October 17-21). Dr. Bernard J. Alpers, Director; Jefferson Medical College of Philadelphia, Philadelphia, Pa.

No. 4. Preclinical Science in Internal Medicine (October 24-29). Dr. W. Barry Wood and Dr. Ralph A. Kinsella, Directors; Washington and St. Louis Universities, St. Louis, Mo.

No. 5. Recent Advances in the Diagnosis and Treatment of Cardiovascular Disease (November 14-19). Dr. Howard B. Sprague and Dr. Edward F. Bland, Directors; Massachusetts General Hospital, Boston, Mass.

No. 6. Biological and Physiological Approaches to Internal Medicine (November 28-December 2). Dr. William S. Middleton and Dr. Karver L. Puestow, Directors; University of Wisconsin Medical School, Madison, Wis.

No. 7. Blood Dyscrasias (December 6-10). Dr. James B. McLester, Director; Medical College of Alabama, Birmingham, Ala.

No. 8. The Physiological Approach to Clinical Problems in the Cardiovascular Diseases (December 5-10). University of Southern California School of Medicine, Los Angeles, Calif.

These courses are open to both members and non-members; fees for A.C.P. members and for Veterans Administration registrants under Public Law 346 are \$30.00; for non-members, \$60.00. Further information may be obtained from Dr. E. R. Loveland, Executive Secretary, 4200 Pine Street, Philadelphia 4, Pa.

The Fourth Annual Postgraduate Course in Recent Advances in Diseases of the Chest, sponsored by the Council on Postgraduate Medical Education and the Illinois Chapter of the American College of Chest Physicians, will be held at the St. Clair Hotel, Chicago, September 19-23, 1949. Participating in the program will be Dr. J. Winthrop Peabody, Professor

of Diseases of the Respiratory System, Georgetown University School of Medicine. Dr. Peabody will present a paper on "Pulmonary Fibrosis" and will be moderator at a round table luncheon.

The 77th Annual Meeting of the American Public Health Association will take place in New York City, October 24-28. The Hotels Statler and New Yorker are joint headquarters.

Each of the 13 Sections of the Association is planning extensive scientific sessions in the field of its special interest. The sections are: Dental Health, Engineering, Epidemiology, Food and Nutrition, Health Officers, Industrial Hygiene, Laboratory, Maternal and Child Health, Medical Care, Public Health Education, Public Health Nursing, School Health and Statistics.

A long list of related organizations will hold meetings at the same time and place. A total attendance of some 5,000 professional public health workers is expected.

Details about the program may be obtained by writing to Dr. Reginald M. Atwater, Executive Secretary, American Public Health Association, 1790 Broadway, New York City.

The National Gastroenterological Association will meet for its 14th Scientific Session at the Somerset in Boston, Mass., October 24-26. On the three days succeeding the Convention, October 27-29, the Association is sponsoring a course in gastrointestinal surgery at the Boston City Hospital.

Full information regarding the program of the Session and details of the course may be obtained by writing to the Secretary, National Gastroenterological Association, 1819 Broadway, New York 23, N. Y.

A Symposium on Brucellosis, sponsored jointly by the National Institutes of Health, PHS, the Bureau of Animal Industry, and the National Research Council, is scheduled for September 22 and 23. All sessions will be held in Wilson Hall, Administration Building, National Institutes of Health, Bethesda, Md. Eminent scientists from all parts of the United States will contribute papers.

The National Institute of Mental Health has announced total grants in the amount of \$2,554,556 to

training centers throughout the country. Of this amount, \$129,844 will go to District hospitals and institutions for training personnel in psychiatry, neurology, clinical psychology, psychiatric nursing and psychiatric social work.

Recipient institutions in the District are: American Psychological Association, \$10,000; Catholic University, \$84,092; Howard University, \$23,362; St. Elizabeths Hospital, \$6,000; and Washington School of Psychiatry, \$6,480.

Dr. A. H. Stanton of the Washington School of Psychiatry will receive a grant of \$27,130 to continue work on a "psychiatric and sociological study of a mental hospital ward" at Chestnut Lodge Sanitarium, Rockville, Md.

The District Medical Society's **Executive Board**, at its meeting, June 27, approved the appointment of the following physicians to serve as representatives of the Society to the Hospital Service Agency: Drs. Clifford E. Bagley, E. Herbert Bauersfeld, James A. Gannon, Jr., and Milton L. Goldman.

At its meeting, August 1, the Board voiced its appreciation to Dr. Earle C. Breeding for his gift to the Society of two valuable books. The volumes were written by Dr. Barry E. O'Meara, a physician designated by the British Government to provide medical services as required by Napoleon Bonaparte while in exile at St. Helena.

The Board appointed its new Finance Committee for the ensuing year. They are Dr. William M. Ballinger, Chairman, Dr. John Minor, and Mr. Theodore Wiprud.

It was voted to make the present Medical Advisory Committee of the Washington Regional Blood Center a committee of the Medical Society, the same designation to continue. The present members, on the recommendation of the President, will continue to serve. They are Dr. Montgomery Blair, Chairman; Drs. Robert J. Coffey, Worth B. Daniels, John L. Parks, and Maurice A. Selinger; also Dr. Thomas M. Peery and Dr. James J. Griffiths, P.H.S., *ex officio* members.

The D. C. Section of the American Congress of Physical Medicine and Rehabilitation met for its monthly breakfast meeting, August 3, at the Medical Center Restaurant. Dr. A. Wm. Reggio, Chief of

Physical Medicine and Rehabilitation of the Public Health Service, described studies being made at the Carville, La., leprosy center on the value of physical therapy, particularly electric muscle stimulation, and occupational therapy technics in preventing and relieving injuries due to nerve involvement in leprosy.

The Washington Heart Association has moved to new headquarters at 1906 M Street, N.W. The telephone number is Executive 1807. Physicians desiring to affiliate with the Association may secure membership information from the headquarters office.

President Cloyd Heck Marvin of **George Washington University** has announced the following promotions for Medical Society members who are serving on the faculty of the School of Medicine:

- Dr. Frederic G. Burke, from Clinical Instructor to Associate in Pediatrics
- Dr. Richard B. Castell, from Clinical Instructor to Associate in Medicine
- Dr. Peter D. Comanduras, from Assistant Clinical Professor to Associate Clinical Professor in Medicine
- Dr. Clayton B. Ethridge, from Associate Clinical Professor to Clinical Professor of Medicine
- Dr. Walter H. Gerwig, Jr., from Clinical Instructor to Associate in Surgery
- Dr. Robert H. Groh, from Associate to Assistant Clinical Professor of Neurology
- Dr. Clarence R. Hartman, from Associate to Assistant Clinical Professor of Medicine
- Dr. Alec Horwitz, from Assistant Clinical Professor to Associate Clinical Professor of Surgery
- Dr. William Allen Howard, from Associate to Clinical Instructor in Pediatrics
- Dr. Henry P. Laughlin, from Associate to Assistant Clinical Professor of Psychiatry
- Dr. Mark H. Lepper, from Associate to Clinical Instructor in Medicine
- Dr. Benjamin Manchester, from Associate to Assistant Clinical Professor of Medicine
- Dr. Marion B. Richmond, from Fellow to Clinical Instructor in Neurology
- Dr. Marshall deG. Ruffin, from Associate to Assistant Clinical Professor of Psychiatry
- Dr. Hyman D. Shapiro, from Assistant Clinical Professor to Associate Clinical Professor of Neurology
- Dr. Myer H. Stolar, from Clinical Instructor to Associate in Medicine
- Dr. Wendell M. Willett, from Clinical Instructor to Associate in Dermatology and Syphilology
- Dr. Irving W. Winik, from Associate to Assistant Clinical Professor of Medicine

The George Washington University Medical Society announces a change in date of meeting from the third Saturday to the third Monday of each month. The first regular meeting will be held on Monday, October 17.

The District of Columbia Ambulance Association, which was organized to give residents of the District better ambulance service and to promote higher standards in the business, held its first meeting, July 25. The following officers were elected: Mr. Edward G. Council, of the Hospital Ambulance and Oxygen Service, President; Mr. Nicholas B. Abare, of the Capital Ambulance Service, Vice President; and Mr. Robert W. Shafferman, of Robert's Private Ambulance Service, Secretary-Treasurer.

The selection of a new District Health Officer to replace Dr. George C. Ruhland, who retires September 30, has been placed in the hands of a committee of nine by District Commissioner Guy Mason. Mr. Mason requested Theodore Wiprud, Secretary of the District Medical Society, to organize the committee. He will not be a member. Those who comprise the Committee are:

General J. O. Dean, Assistant Surgeon General, Public Health Service; the Reverend Paul A. McNally, Dean of Georgetown University School of Medicine; Dr. Walter A. Bloedorn, Dean of George Washington University School of Medicine; Dr. Joseph L. Johnson, Dean of Howard University School of Medicine; Dr. Winfred Overholser, Chairman of the Health and Hospital Section of United Community Services and Superintendent of St. Elizabeths Hospital; Dr. Montgomery Blair, Jr., representing the District Medical Society; Dr. Jesse A. Keene, representing the District Medico-Chirurgical Society; Dr. Edward D. Leifer, representing the District Dental Society; and Dr. William T. Grady, representing the Robert T. Freeman Dental Society.

At the June Convention of the American Medical Association, **Dr. Margaret M. Nicholson** was elected Chairman of the Section on Pediatrics. For several years she has served as Secretary of the Section.

Dr. Nicholson was also appointed Chairman of the Legislative Committee of the American Medical Women's Association.

Warren E. Magee, legal counsel for the District Medical Society, has been chosen General Counsel for MEDICAL SERVICE OF THE DISTRICT OF COLUMBIA.

Dr. Edward J. Stieglitz, Consultant in Gerontology to the National Institutes of Health, addressed the 14th Annual Medical Day at Chautauqua Institute, Chautauqua, New York, July 28. The subject of his address was "The Challenge of Longevity." Members of surrounding medical societies, from Erie, Pennsylvania to Buffalo, New York, participated in this meeting.

Dr. Philip A. E. Stebbing, Superintendent of **Gallinger Municipal Hospital**, presided at ceremonies, August 4, which marked the 48th annual graduation of the Capital City School of Nursing of Gallinger Hospital. The class of eleven nurses was presented by Miss Beatrice E. Ritter, Director of Nursing. The address to the graduates was made by **Dr. John Parks**, member of the School of Nursing advisory committee.

Dr. Murray M. Copeland will be a guest speaker, September 27, at the first annual meeting of the Southwestern Surgical Congress in Houston, Texas. His paper will be entitled, "Bone Diseases with Osteoporotic or Malacic Changes."

Dr. Eloise Kailin is again preparing the pollen count in the District of Columbia for the District Medical Society. The day-by-day count will be published in Washington newspapers as in previous years.

Theodore Wiprud was invited to Florence, South Carolina, September 15, to address the Pee Dee Medical Association. This Association was organized in 1848 and is composed of the seven county medical societies in that area. Mr. Wiprud spoke at an open meeting which had as its objective the promoting of better relationship between the profession and the laity. The emphasis this year was on Compulsory Health Insurance and Its Dangers.

Mr. Wiprud also spoke to the Florence Kiwanis Club on "Washington Is Not All Politics."

Henry D. Hamilton, assistant to the Director of Ellis Hospital in Schenectady, New York, has been appointed Executive Secretary of the **Hospital Council of the National Capital Area**. He assumed his new duties, August 15, succeeding Robert P. Bryant, who resigned in May to become Manager of the

University Club in Albany, N. Y. Mr. Hamilton is a graduate of the University of Saskatchewan, Canada, and received an M. S. Degree from Columbia University.

Dr. Marc Allen Weiner, who became affiliated with the District Medical Society early this year, recently passed the examinations of the American Board of Dermatology and Syphilology and is practicing his specialty in the Columbia Medical Building Annex.

Members of the Medical Society whose names have been appearing recently on the programs of **Professional Staff Proceedings of Walter Reed General Hospital** are Drs. Irving B. Brick, Alfred Brigulio, Hugh H. Hussey, Mark H. Lepper, Wm. Calhoun Stirling and Theodore Winship.

Mrs. Katherine MacKenzie Moncure, founder and head of the Department of Physiotherapy of **Emergency Hospital**, died, July 17, 1949, at the Hospital. She was born in Canada in 1886. After receiving her nurse's training at the Worcester State Hospital in Massachusetts, she practiced for several years before coming to Washington in 1914. She was employed by Dr. A. R. Shands for 10 years. After her marriage to Richard T. Moncure, she moved to Stafford County, Va., and continued her profession as a county nurse.

On her husband's death in 1938, she returned to Washington and joined the staff at Emergency Hospital, where she founded and headed the Department of Physiotherapy.

BOOK REVIEW

A Textbook of Neuropathology, with Clinical, Anatomical, and Technical Supplements. BEN W. LICHTENSTEIN, B.S., M.S., M.D., Associate Professor of Neurology, University of Illinois College of Medicine; State Neuropathologist, Illinois Neuropsychiatric Institute; Attending Neurologist, Cook County Hospital; Professor of Neurology, the Cook County Graduate School of Medicine; Attending Neuropsychiatrist, Mount Sinai Hospital, Chicago. Price, \$9.50. Pp. 474, with 282 figures. Philadelphia: Saunders, 1949.

Lichtenstein considers the nervous system as part of the body as a whole, just as he considers neurology a part of medicine. While there are many diseases that have

their chief or only specific alterations in the nervous system, there are many others in which the pathology of the nervous system is only the reflection or the extension of the general process to the nervous system. This attitude presupposes a broad basis of knowledge in the fundamentals of the body and its reaction to stresses of various sorts.

This volume presents an excellent discussion of the morbid anatomy of the nervous system, mostly the central portion, lavishly illustrated by superb photographs. The material is presented in systematic form, with the individuality of the author firmly impressed upon his descriptions. At times Lichtenstein is a bit vague and diffuse, and he swings back and forth from the clinical to the morphologic aspects of certain disorders in a way that is a bit confusing. He assumes a knowledge of normal cytology in the text, while frequently illustrating the differences between the normal and the abnormal in the really beautiful photomicrographs. He sticks closely to his task of the delineation of tissue changes, and seldom wanders into detailed discussions of pathogenesis. The descriptions are, therefore, somewhat static and lacking in the dynamic sequences that help to make neuropathology a lively subject.

This Neuropathology is enlivened, however, by a clinical supplement, which is almost a neurologic dictionary. One hundred and fourteen syndromes, paralyzes and uncommon diseases, bristling with eponyms, make the volume a ready reference work for the student who is all too likely to be confused by neurologic terminology.

References are liberal and the index is good. Twelve pages devoted to a Table of Contents are, therefore, too much.

WALTER FREEMAN, M.D.

BOOKS RECEIVED FOR REVIEW

Acknowledgment is made of the following books which have been received for review:

Blakiston's New Gould Medical Dictionary, edited by HAROLD WELLINGTON JONES, M.D., NORMAND L. HOERR, M.D., AND ARTHUR OSOL, Ph.D., with the coöperation of an Editorial Board and 80 Contributors. Price, textbook edition, \$8.50; thin paper, \$10.75; deluxe, \$13.50. Pp. 1294, with 252 illustrations on 45 plates, 129 in color. Philadelphia: Blakiston, 1949.

The Value of Hormones in General Practice. W. N. KEMP, M.D., Vancouver, B. C. Price, \$3.00. Pp. 115. Minneapolis, Minn.: Burgess, 1949.

A Textbook of Neuropathology, with Clinical, Anatomical and Technical Supplements. BEN W. LICHTENSTEIN, B.S., M.S., M.D., Associate Professor of Neurology, University of Illinois College of Medicine; State Neuropathologist, Illinois Neuropsychiatric Institute; Attending Neurologist, Cook County Hospital; Professor of Neurology, the Cook County Graduate School of Medicine; Attending Neuropsychiatrist, Mount Sinai Hospital, Chicago. Price, \$9.50. Pp. 474, with 282 figures. Philadelphia: Saunders, 1949.

Medical Etymology—The History and Derivation of Medical Terms for Students of Medicine, Dentistry, and Nursing. O. H. PERRY PEPPER, M.D., Professor of Medicine, University of Pennsylvania. Price, \$5.50. Pp. 263. Philadelphia: Saunders, 1949.

Shearer's Manual of Human Dissection, 2nd ed. CHARLES E. TOBIN, Ph.D., Associate Professor of Anatomy, The University of Rochester School of Medicine and Dentistry. Price, \$4.50. Pp. 286, with 79 illustrations. Philadelphia: Blakiston, 1949.

Sixth Semiannual Report of the Atomic Energy Commission, July 1949. United States Atomic Energy Commission. Pp. 203. Washington, D. C.: U. S. Government Printing Office, 1949.

Marihuana in Latin America—The Threat It Constitutes. PABLO OSVALDO WOLFF, M.D., Ph.D., M.A., Buenos Aires, Argentina; member of Expert Committee on Habit Forming Drugs of the World Health Organization. Sponsored by Washington Institute of Medicine. Price, paper, \$1.50. Pp. 56. Washington, D. C.: Linacre Press, 1949.

HENRY GARNETT PLASTER, M.D. (1879-1949)

Dr. Henry Garnett Plaster, a practicing physician in Washington since 1925, died August 3, 1949, at his home, 1822 Calvert Street, N.W. He had been in ill health for more than a year.

Dr. Plaster, a descendant of George Mason, was born in Bluemont, Virginia, the son of Dr. G. E. Plaster and Mrs. Sally Taliaferro Plaster. After graduating in medicine from the University College of Virginia in Richmond in 1899, at the age of 20, he opened his offices in Bluemont, where he continued in practice until 1921. He later practiced for a few

years in Leesburg, 1921 to 1923, coming to Washington in 1925. For 20 years he was a member of the Board of Health of Loudoun County, Virginia.

Dr. Plaster was a member of the American Medical Association and an Active member of the District Medical Society, his membership dating from 1927.

Surviving are his wife, Mrs. Jerusha Lohman Plaster; a daughter, Ensign Judith S. Plaster, U.S.N., now stationed at Norfolk, Va.; a son, Henry G. Plaster, Jr., a senior at Duke University; three sisters, Mrs. Nellie B. Thomas of Washington, Mrs. Archibald T. Osborne of Berryville, Va., and Mrs. James S. Bromfield, Brevard, N. C.; and a brother, Hubert T. Plaster, of Williamsburg, Va.

Aerosporin for Enteritis—Ross et al

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muscular administration. Untoward side-reactions included local pain and tenderness at the site of injection, fever, malaise, leukocytosis, eosinophilia, and evidence of renal damage characterized by albuminuria, microscopic urinary findings, and azotemia. These toxic reactions preclude its widespread usefulness.

BIBLIOGRAPHY

1. AINSWORTH, G. C., BROWN, A. M., AND BROWNLEE, G.: "Aerosporin," antibiotic produced by *Bacillus aerosporus* Greer. *Nature*, London, 1947, **160**, 263.
2. STANSLY, P. G., SHEPHERD, R. G., AND WHITE, H. J.: Polymixin; new chemotherapeutic agent. *Bull. Johns Hopkins Hosp.*, 1947, **81**, 43.
3. BROWNLEE, G., AND BUSHBY, S. R. M.: Chemotherapy and pharmacology of aerosporin. *Lancet*, 1948, **1**, 127.
4. ROSS, S., AND OTHERS: Streptomycin in treatment of *Salmonella* enteritis. *New England J. Med.*, 1949, **240**, 602.

Cancer of Breast—Elias

(Continued from page 464)

complete physical examinations once or twice yearly. The fact that cancer is curable if detected early enough has never been fully emphasized. All physical examinations should include a complete examination of the breasts for any masses or ulcerations. Physicians should never assume that a mass is benign but should consider it

malignant until proven otherwise. Far too many patients can be offered only palliation because the disease has reached a hopeless state before surgical extirpation can be effected.

BIBLIOGRAPHY

1. COOPER, A. P.: *Illustrations of the Diseases of the Breast*. London: Longman, Rees & Co., 1829, chap. 9.
2. SHENKIN, J., BURNS, E., AND KAHLEN, P. J.: *J. Urol.*, 1942, **48**, 94.
3. MAURE, G. F., WATTENBERG, C. A., AND ROSE, D. K.: *J. A. M. A.*, 1945, **127**, 60.
4. ULRICH, P.: *Acta, Union internat. contre cancer*, 1939, **4**, 377.
5. MURLIN, J., KOCHAKAIN, C., SPURR, C., AND HARVEY, R.: *Arch. Path.*, 1939, **28**, 777.
6. LACASSAGNE, A.: *Am. J. Cancer*, 1936, **27**, 217.
7. LOEB, L.: *J. Nat. Cancer Inst.*, 1940, **1**, 169.
8. GARDNER, W. U.: *Surgery*, 1944, **16**, 8.
9. RIDDLE, O.: *J. A. M. A.*, 1940, **115**, 2276.
10. FARROW, J. H.: *Surgery*, 1944, **16**, 141.
11. TREVES, N., ABELS, J. C., WOODARD, H. Q., AND FARROW, J. H.: *Surg., Gynec. & Obst.*, 1944, **79**, 589.
12. HUGGINS, C., MASINA, M. H., EICHELBERGER, L., AND WHARTON, J. D.: *J. Exper. Med.*, 1940, **72**, 747.
13. SATTERTHWAITE, R., HILL, J., AND PACKARD, E.: *J. Urol.*, 1940, **46**, 1149.
14. HALBERSTAEDTER, L., AND HOCHMAN, A.: *J. A. M. A.*, 1946, **131**, 810.
15. TAYLOR, G. W.: *Surg., Gynec. & Obst.*, 1939, **68**, 452.
16. ADAIR, F. E., TREVES, N., FARROW, J. H., AND SCHAINGEL, I. M.: *J. A. M. A.*, 1945, **128**, 161.
17. NATHANSON, I. T.: *S. Clin. North America*, 1947, **27**, 1144.
18. LOEB, L., SUNTZEFF, V., BURNS, E., AND MOSKOP, M.: *Am. J. Cancer*, 1936, **27**, 229.
19. BURROW, H.: *J. Path. & Bact.*, 1936, **42**, 161.
20. EDITORIAL: *J. A. M. A.*, 1940, **114**, 1560.
21. HADDOW, A., WATKINSON, J. M., AND PETERSON, E.: *Brit. M. J.*, 1944, **2**, 393.
22. HERMANN, J. B., ADAIR, F. E., AND WOODARD, H. Q.: *Arch. Surg.*, 1947, **54**, 1.
23. NATHANSON, I. T.: *Cancer Research*, 1946, **6**, 484.
24. NATHANSON, I. T.: *New England J. Med.*, 1944, **231**, 764 and 795.
25. NEMIROVSKY, J.: *Am. J. Obst. & Gynec.*, 1946, **51**, 740.
26. LOESER, A.: *Lancet*, 1941, **2**, 698.
27. GARDNER, W. U.: *Surgery*, 1944, **16**, 8.
28. NATHANSON, I. T.: *Ibid.*, 1944, **16**, 108.
29. FELS, E.: *J. Clin. Endocrinol.*, 1944, **4**, 121.
30. HERMANN, J. B., AND ADAIR, F. E.: *Ibid.*, 1946, **6**, 769.
31. BOGER, W. P.: *Ibid.*, 1946, **6**, 88.
32. FARROW, J., AND WOODARD, H.: *J. A. M. A.*, 1942, **118**, 339.
33. ADAIR, F. E., AND HERMANN, J. G.: *Ann. Surg.*, 1946, **123**, 1023.

Correspondence

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not be socialized in a vacuum. The socialization of any group, or segment of a group, is but a precursor of things to come. Medicine must not weaken its stand for freedom by partial appeasement and thus fall victim to piecemeal socialization. Abraham Lincoln observed that, "No nation can long endure half slave and half free." It should be even more obvious that no profession can permanently maintain this imbalance.

It would be appreciated if you would bring this statement on the part of the American College of Radiology to the attention of all members of your group.

Respectfully,

WILLIAM C. STRONACH

*Executive Secretary,
The American College of Radiology*

Chicago, Ill.

August 1, 1949

INDEX TO "WASHINGTON PHYSICIANS OF YESTERDAY"

Below is the **ALPHABETICAL INDEX** to the biographical sketches of the fifty notable physicians memorialized under the caption "Washington Physicians of Yesterday" in the **MEDICAL ANNALS OF THE DISTRICT OF COLUMBIA 1945-1949**. The items show the physician's name, the life span (years of birth and death), and the month and year of publication, followed by volume and page numbers. The authorship of the articles, which were written by Dr. John B. Nichols and Mr. Theodore Wiprud, is indicated by the initials "N" or "W."

- Adams, Samuel Shugert; 1853-1928; September, 1947, XVI, 523. (N)
- Antisell, Thomas; 1817-1893; December, 1945, XIV, 561. (W)
- Barnes, Noble Price; 1871-1933; July, 1949, XVIII, 366. (N)
- Barton, Wilfred Mason; 1871-1930; April, 1948, XVII, 243. (N)
- Belt, Edward Oliver; 1861-1906; November, 1947, XVI, 636. (N)
- Borden, William Cline; 1858-1934; April, 1949, XVIII, 206. (N)
- Bovée, John Wesley; 1861-1927; June, 1949, XVIII, 310. (N)
- Burnett, Swan Moses; 1847-1906; October, 1948, XVII, 581. (N)
- Busey, Samuel Clagett; 1828-1901; May, 1945, XIV, 208. (W)
- Cook, George Wythe; 1846-1928; February, 1947, XVI, 106. (N)
- Dick, Elisha Cullen; 1750-1825; September, 1945, XIV, 424. (W)
- Franzoni, Charles William; 1837-1923; December, 1948, XVII, 689. (N)
- Fry, Henry Davidson; 1853-1919; March, 1949, XVIII, 154. (N)
- Garnett, Alexander Velverton Peyton; 1820-1888; March, 1946, XV, 139. (W)
- Groover, Thomas Allen; 1877-1940; January, 1948, XVII, 58. (N)
- Hall, James Crowdhill; 1805-1880; July, 1946, XV, 347. (W)
- Holden, Raymond Thomas; 1860-1937; June, 1947, XVI, 345. (N)
- Jacger, Henry William; 1888-1937; May, 1949, XVIII, 267. (N)
- Johnson, Henry L. E.; 1858-1915; August, 1949, XVIII, 421. (N)
- Johnson, Joseph Taber; 1845-1921; January, 1949, XVIII, 46. (N)
- Johnston, William Patrick; 1811-1876; September, 1946, XV, 463. (W)
- Johnston, William Waring; 1843-1902; November, 1945, XIV, 519. (W)
- Kerr, James; 1848-1911; June, 1948, XVII, 362. (N)
- King, Albert Freeman Africanus; 1841-1914; January, 1947, XVI, 40. (N)
- Kober, George Martin; 1850-1931; August, 1945, XIV, 376. (W)
- Lamb, Daniel Smith; 1843-1929; May, 1947, XVI, 275. (N)
- Lindsly, Harvey; 1804-1889; June, 1946, XV, 296. (W)
- Mackall, Louis; 1867-1930; February, 1948, XVII, 120. (N)
- May, Frederick; 1773-1847; February, 1946, XV, 84. (W)
- May, John Frederick; 1812-1891; August, 1946, XV, 403. (N)
- McLaughlin, Thomas Notley; 1860-1921; February, 1949, XVIII, 98. (N)
- Miller, Thomas; 1806-1873; April, 1946, XV, 185. (W)
- Morgan, James Dudley; 1862-1919; December, 1947, XVI, 708. (N)
- Prentiss, Daniel Webster; 1843-1899; August, 1948, XVII, 458. (N)
- Reyburn, Robert; 1833-1909; September, 1948, XVII, 534. (N)
- Richardson, Charles Williamson; 1861-1929; March, 1947, XVI, 160. (N)
- Roy, Philip Seddon; 1861-1929; May, 1948, XVII, 297. (N)
- Shute, Daniel Kerfoot; 1858-1935; July, 1948, XVII, 408. (N)
- Smith, Thomas Croggon; 1842-1913; March, 1948, XVII, 176. (N)
- Stone, Isaac Scott; 1851-1935; October, 1947, XVI, 582. (N)
- Stone, Robert King; 1822-1872; May, 1946, XV, 238. (W)
- Thomas, Ada Rebecca; 1868-1925; July, 1947, XVI, 399. (N)
- Thompson, Joseph Ford; 1837-1917; August, 1947, XVI, 457. (N)
- Thornton, William; 1761-1828; October, 1945, XIV, 472. (W)
- Toner, Joseph Meredith; 1825-1896; July, 1945, XIV, 323. (W)
- Tyler, Grafton; 1811-1884; October, 1946, XV, 515. (N)
- Wilmer, William Holland; 1863-1936; April, 1947, XVI, 212. (N)
- Worthington, Charles; 1759-1836; January, 1946, XV, 47. (W)
- Yarrow, Harry Crecy; 1840-1929; November, 1948, XVII, 643. (N)
- Young, Noble; 1808-1883; December, 1946, XV, 628. (N)

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ATOMIC BOMBS OVER WASHINGTON*

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Washington

 IF WE can make it sufficiently clear, in advance, that any armed attack affecting our national security would be met with overwhelming force, the armed attack might never occur." With these words the President of the United States of America, in his inaugural address on January 20, 1949, forecast a possible change in the policy of this country. Many of us believe that the converse of this policy was the great factor in permitting the opening of World War I and World War II. Winston Churchill is reported by the *New York Times* to have said, "It is my belief that at the present time the only sure foundation of peace and of prevention of actual war rests upon strength. Nothing stands between Europe today and complete subjugation to Communist tyranny but the Atomic Bomb in American possession." However, it is obvious to all persons that the present monopoly of the English-speaking nations in atomic warfare probably will not continue to exist indefinitely. In fact, in view of the statement that the Republic of France has now attained the "know-how" for the production of atomic weapons, it may be assumed that other nations, which are more likely to be potential enemies of this country, also may have the same information or are about

to obtain it. We can perhaps allow ourselves three or four more years in which to prepare for this emergency, but certainly no more than that.

We recognize that it is altogether possible that the same situation may develop in regard to atomic warfare as existed in World War II in relation to the use of gas warfare, in which, because of the tremendous potential destructive power of this weapon on both military and civil populations, no major belligerent power used it against any other major belligerent. The only recorded instances, and these have not been publicized extensively, occurred in the case of a major belligerent using them against a defenseless, weaker nation. However, certainly no one who considers this problem conscientiously and thoughtfully can have the feeling that we may rest upon this assumption for one moment. It is our opinion that the medical profession of this city has not yet realized what it can do in addressing its attention to protection against the effects of atomic warfare. We tend to become absorbed in the details of our many daily problems and these often exclude consideration of more remote matters. Defense against these weapons may be generally divided into two great classes. The first, the prevention of an atomic attack, or active defense, is fundamentally the responsi-

* Read before the Kober Society, March 21, 1949.

bility of the armed forces of this nation and is being, at the present time, very adequately promoted by them, if we can believe the reports we receive. The second portion of that defense and the one which concerns us, as members of the medical and allied professions, is what is known as passive defense, or the ability to repel, contain, and, in so far as possible, neutralize the effects of an atomic attack, should one occur.

Is an atomic attack probable upon this nation? That can only be answered by the statement that it is a possibility. It may be assumed that if our potential enemy made advances against certain friendly nations in western Europe, we would endeavor to stop the attack by the use of atomic weapons. Such an attack must always be considered as involving the use of a strategic weapon, since the atom bomb cannot be considered tactical because of its cost. Therefore, certainly we may logically assume that any attack of this type would be overwhelming in nature and calculated to render the effective military power of the victim useless in a few hours. Although *we* might mount an attack, an enemy also having such a weapon in his power, and being denied the ability to actually invade our territory by reason of the destruction of his offensive power, might still use the weapon in retaliation in an attempt to reduce our ability to invade his territory or that which he covets. On the other hand, it is also possible that a potential enemy, realizing our ability to strike against him in full force and having a similar weapon at his command, might, from fear or the misinterpretation of diplomacy or of any political moves on our part, open an attack in the hope of neutralizing our ability to take offensive action against him. In view of these facts it seems reasonable to prepare ourselves to meet any such emergency and to do it promptly.

The Office of Civilian Defense has looked into this problem on a national level, and recently has completed its work and submitted its report.¹ Naturally, no action has been taken as yet by the Congress for an adoption of this program.

We are told the report of the commission is necessarily general in nature, setting up the overall structure for general administration of the defense plan and its major subdivisions, but that it does not go into detail in any actual program of local defense. Apparently, it is provided that on the staff of the Director of Civilian Defense would be a physician who would supervise the medical service of that defense. But the report states that, "Civilian defense will be almost entirely a local function." Forward-looking medical societies in some of the larger cities in this country have been laboring with this problem for over a year. We are told that District of Columbia officials have not been receptive so far to the offers of the Committee on Emergency Medical Service of the Medical Society of the District of Columbia. We see no reason to believe that Washington would be any exception to other cities in sustaining such an attack and therefore believe it is well to prepare ourselves.

In order to make this problem more graphic, I shall assume an attack upon Washington and outline the general principles that must be considered in deciding how to meet it. The general situation of our problem is as follows: A strong northern European military power, frustrated by the fact that its plans for expansion of territory within its geographic sphere have been thwarted by the threat to its war machine and war potential by an atomic attack from this nation, will decide to attack the principal targets of military value in the northern part of the United States. That nation has available several dozen atomic bombs, of a size comparable to those used against Hiroshima and Nagasaki in 1945. The nation also has available sufficient aircraft of a great enough size and range, essentially equivalent to the United States B-29 in type, so that these bombs can be launched simultaneously against about the same number of United States centers of production. Cities which are steel and transportation centers, or contain ports, shipyards, oil refineries, arsenals or atomic energy plants, are among the targets.

The special situation concerning Washington involves two primary targets, the Naval Gun Factory in the Southeast and the National Bureau of Standards in the Northwest (see fig. 1) with secondary targets of the Naval Powder Factory at Indianhead, Md. and the David Taylor Model Basin at Carderock, Md., if the attack should be deflected from either of the primary targets. Although other targets such as the Pentagon Building, the Engineer Board Research Laboratory at Fort Belvoir, the Army Map Service Center, and the Dalecarlia Reservoir within the District, offer consideration as targets, these are regarded as too small and too near the periphery of the metropolitan area to justify the use of an "A"-bomb. To assure the success of the attack, it will be launched early Sunday morning, before dawn, July 6, 1952, when the life of the average American and his institutions are most disorganized and least responsive to stimuli. On that long weekend many will be celebrating the 176th anniversary of the proclamation of liberty in this country. Many others will be just celebrating. This time of the year is chosen because arctic flying conditions will be better than at any other time. The attack will be launched and, in the case of Washington, we may expect that it will be successful on both targets. What problems confront us, as medical men, both civilian and military?

Using figures supplied by the Office of Civilian Defense, for the casualties from 1 atomic bomb of the type described above, and doubling this for the 2 bombs with which we are dealing in our problem, we may expect 200,000 casualties, of whom about 80,000 will be fatalities, half instantly, and half within a week. Of the 120,000 wounded, one third will need extensive care within a week, another third will need extensive care within 3 weeks, and the other third will need lesser care within that same period. Using figures supplied by the Office of the Surgeon General of the Army,² we would expect 100,000 deaths, rather than 80,000, and if we, of the general

population, are trained beforehand in what can be done to help ourselves, we can expect to save at least 20,000 lives, we are told. With sufficient indoctrination and a few minutes' advance warning of an attack, it is stated that it is quite possible that there will be a 50 per cent saving in casualties in this disaster. A few simple computations reveal that here is an opportunity for us of the healing arts professions to accomplish,

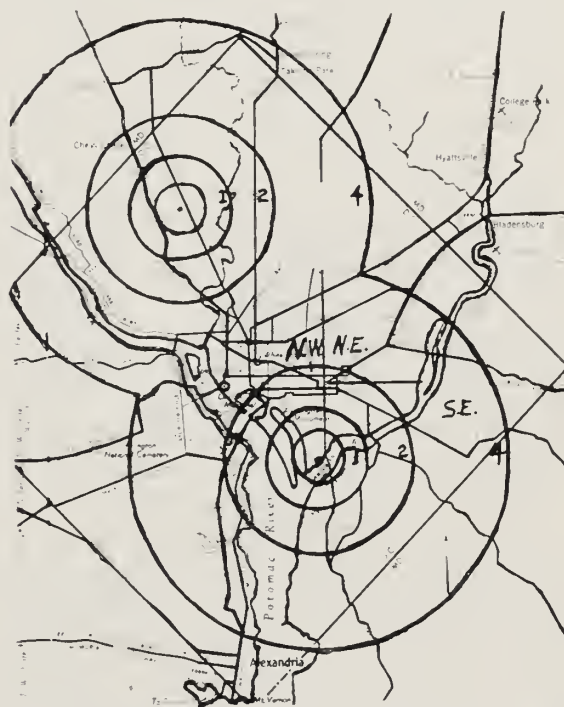


FIG. 1. Map of the District of Columbia with zero points at the National Bureau of Standards and the Naval Gun Factory showing concentric zones with radii of $\frac{1}{2}$, 1, 2 and 4 miles.

within 3 weeks' time, more than we would accomplish in an ordinary 2 years in our practice. The bomb dropped over Hiroshima on August 6, 1945, which was responsible for the greatest casualties among individuals of all bombs so far used, completely and instantly devastated over 4 square miles of territory and produced deaths in 66,000 of the population, with an additional 69,000 being injured. The bomb dropped subsequently on Nagasaki destroyed $1\frac{1}{2}$ square

miles of the city, killed 39,000 people, and injured 25,000 more.

Three great etiologic factors are responsible for the deaths and injuries in such a disaster. These are trauma, heat, and ionizing radiation. For personnel in the open within a half mile of the zero point of an air burst detonation death will occur almost instantaneously, or within a few hours (see fig. 1). Within a radius of more than a half mile and less than 1 mile some persons will die instantly, while the majority will receive varying degrees of injury. Ordinary houses and structures will suffer complete destruction or extensive damage, and fires will be widespread. Between a radius of 1 mile and a radius of 2 miles from the zero point personnel will suffer injuries from flash burns and indirect blast effects. Outside a radius of 2 miles but within a radius of 4 miles personnel will be injured by flying fragments and suffer superficial wounds. Structures will be half or partially destroyed within this radius. In any such air burst explosion it is estimated that 70 per cent of those exposed will suffer from traumatic injury, 65 per cent from burns, and 35 per cent from radiation.

In considering the injuries due to trauma, 2 types present themselves, the first, "blast," the second, indirect trauma from flying fragments. In the air burst over Hiroshima no one was closer than several hundred meters to the bomb itself. At that distance the peak pressure had already fallen. Japanese medical observers on the spot could not find any patients with direct damage to the internal organs caused by blast. A report shows a total of 17 ruptured ear drums at Hiroshima and 22 at Nagasaki. As for injuries produced by flying debris in the Japanese explosions windows were broken as far as 12 miles away from the zero point with consequent lacerations. However, at about a mile and a half from the center of the explosion the incidence of mechanical injury to survivors began to fall off rapidly. The percentage of injury varies considerably, depending upon the construction of buildings. For example, buildings of heavy con-

crete offer much more protection, but if they have a large percentage of glass in their exterior surface, they will naturally produce more lacerations. Exactly how much of the total mortality was caused by the traumatic factor in these explosions will never be known, because within half an hour following the blast and before rescue operations could be instituted both cities were swept by fire. The traumatic injuries include abrasions, contusions, lacerations, fractures, dislocations, sprains, and their resultant shock and hemorrhage.

Burns in an atomic explosion are essentially of two types, flash burns and flame burns. Flame burns were relatively infrequent in the Japanese disasters because of the fact that the fires did not begin until a half hour after the explosion. This gave those who were able to move time to escape, whereas those who could not be evacuated were burned to death in most cases. The flash burns resulted from radiant energy which covered the entire width of the spectrum. Only surfaces exposed directly to the rays were affected by them. Burns were of no significance beyond about $1\frac{1}{2}$ miles. Those persons within 1 mile of the zero point who were burned showed erythema within 3 hours and vesication within 10 hours. There was 1 case reported, at approximately 1 mile distance, in which vesication occurred within 10 minutes. A few direct injuries to the eyes occurred. These were chiefly palpebral burns. Keloid changes were extremely common as a result of the burns. According to Japanese physicians, a high incidence of keloids is not characteristic of their race, but, considering the great number found, this statement is probably an attempt to save "Jap" "face," if not his skin. Various features of clothing were determining factors of the degree and type of burn. Where the clothing was heavier, or the distance from the zero point greater, the burns were decreased. Lighter shades were more resistant to the effect of the heat than the darker shades, the latter tending to absorb the heat. Tightness was a factor in increasing the degree of burn. Seams

and double layers demonstrated the protective effect.

The third great group of injuries, those produced by ionizing radiation, may be the result of any 1 or more of 4 types of particles: fast neutrons, and alpha, beta and gamma rays (see fig. 2). The neutron is a particle which exists in every atomic nucleus, except that of hydrogen. It differs from the proton in that it has no electric charge whatever. Both neutrons and protons are about the same weight, and each is 1,840 times heavier than an electron. Alpha particles are helium nuclei containing 2 neutrons and 2 protons each; they move at a high velocity. They may be completely stopped by a few sheets of thin paper. However, in direct contact with cellular tissue they can be very damaging. Beta particles are ordinary electrons which are emitted from nuclei and are moving at a high velocity. They are not as easily stopped as alpha particles, but a few thin sheets of aluminum are capable of stopping them. When the nucleus of an atom suffers a collision with a high energy atomic particle, it may become excited by virtue of having absorbed energy from the collision. One way in which the nucleus can get rid of this energy is by emitting a proton, and this proton is called a gamma ray, differing only from an X-ray in that it generally is a higher energy proton.

In dealing with the air-burst atomic explosion, we are faced with the problems of both external and internal radiation. In internal radiation, the source is taken into the body by ingestion, inhalation, or through a break in the skin. External, of course, is that which may pass through the intact skin. Since alpha particles are so easily stopped, they need not be considered as an external hazard. However, since they are also highly ionizing, they constitute a very serious hazard when deposited internally in the bone marrow, with severe damage to that tissue. Beta particles have a similarly poor penetration, but they also are dangerous internally. Externally, they have some strong caustic effect on the skin at short

distances. High energy gamma rays have much less degree of ionization than alpha or beta particles, but their ability to penetrate and reach the deep tissues makes them a particular hazard in external radiation. Neutrons are also penetrating, and their power of ionization is about 5 to 6 times as great as that of gamma rays, which makes them serious external hazards. The various body tissues may be listed in their order of sensitivity to radiation as follows: lymphoid tissue, bone marrow, lymphocytes, lymph nodes

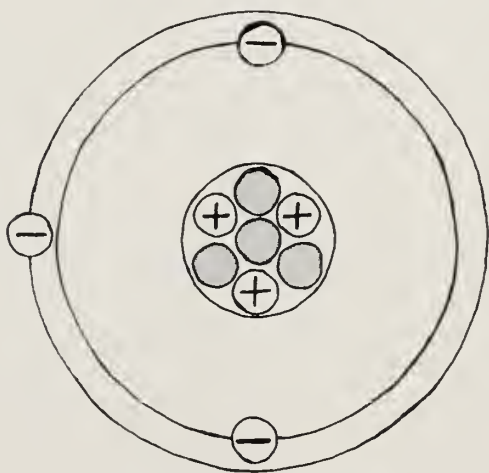


FIG. 2. Diagram of the lithium atom showing 7 nuclear particles (3 protons and 4 neutrons) which account for its atomic weight; and the 3 electrons in 2 orbits which account for its atomic number. This atom is the simplest which contains each type of particle found in the uranium atom, in turn the most complex of all.

Li	Atomic Number	3	Atomic Weight	7
U	Atomic Number	92	Atomic Weight	238

and Peyer's patches, polymorphonuclear leukocytes, the epithelial cells of the gonads, salivary glands, skin and mucous membranes, the endothelial cells of the blood vessels and peritoneum, connective tissue cells, muscle cells, and finally nerve cells. One of the peculiarities of radiation is the variation in response of different species and between identical cells or tissues of the species to the same dosage of radiation.

Alterations in the blood picture may be observed within an hour after total body radiation. There is an initial leukocytosis followed by a

leukopenia, with a relative decrease in lymphocytes and several days later a reduction in the erythrocyte count. Anemia is a manifestation of severe bone marrow damage and is often fatal. In the reproductive organs permanent sterility can be produced by exposure to about 800 R in the male and 600 R in the female. Temporary sterility may be readily produced by much lower doses. The genetic injury necessarily requires long-range study, and such study is now being carried on in Japan under the auspices of the National Research Council of the United States. Many years must necessarily pass before significant results can be obtained and evaluated.

Among the clinical signs of radiation injury, epilation was frequently observed in persons who had been close to the bomb and who had survived for more than 2 weeks. In no case reported was epilation permanent. Many patients suffered severe nausea and vomiting as early as 30 minutes following the detonation. In others it did not occur until the next day. The incidence of this symptom decreased as the distance from the zero point increased. In many patients, diarrhea, sometimes sanguineous in character, occurred within the first few days. Histologically the radiation effect on the testes was discernible as early as the fourth day and was profound in all fatal cases in individuals within 1 mile of the zero point. Ovaries showed less striking changes than testes. Purpura was almost always manifested in patients dying in the third to the sixth week, inclusive. Its incidence at various distances from the center of the blast almost paralleled that of epilation. Purpuric spots appeared at about the same time as fever. Their peak occurred between the sixteenth and twenty-second day following the explosion, and was about 5 days later than the peak of epilation. The occurrence of purpura tended to increase the bleeding from lacerations, fractures, and burns, and to prolong the healing of wounds. The earlier the fever, the more severe the other symptoms and the poorer the prognosis.

What can we, as individuals, do about this problem? In the first place, it seems logical for

all physicians and members of the allied healing professions of the metropolitan area to be organized into geographically affiliated teams to cope with this disaster. No physician or dentist should be exempted because of specialty, retirement status, and other special conditions, provided he is physically capable of performing any service whatever. These personnel should be trained by special courses in what to do in the event of such an emergency. Being thoroughly cognizant of the problem and of the means to meet it, they may be of enormous help in educating the rest of the population in how it should conduct itself, and in informing and teaching representative citizens with whom the healing profession comes in contact about the need for such organization. Dr. Perrin Long, Medical Consultant to the Civilian Defense office, estimates that the casualties caused by a single bomb of the type we have discussed would require about 5,000 physicians and 60,000 medical supporting personnel. How we would obtain 5,000 to 10,000 physicians in the Washington area to cope with such a disaster, occurring simultaneously with similar disasters in other neighboring cities, is a difficult problem. Certainly support would have to come from the neighboring rural areas. Dr. Long estimates a need for 300 first-aid teams, 500 stretcher-bearer teams, 400 casualty collection points, and 40 neuropsychiatric centers within 24 hours of the disaster, when just 1 bomb is exploded. Drs. Stone, Jacobson and Allen,³ formerly with the plutonium project of the Manhattan District, are of the opinion that induced radioactivity or contamination with radioactivity in the vicinity of an air-burst type of explosion would be negligible, and that therefore teams of medical workers could immediately enter the area. This reduces the problem to the treatment of the primary irradiation injury, burns, blast, and penetrating injuries, in combination or separately. However, in discussing the public health aspects of such an explosion, the Surgeon General's Office calls attention to the danger of possible induced radioactivity to all food which is in

the area. The same applies to water and to smoking tobacco which has been present in the area at the time of the explosion. Apparently, unanimity of thought in regard to this secondary hazard has not yet been achieved. The problem of decontamination centers for area evacuation, at which outer clothing, gloves, boots, etc., would be changed by personnel entering or leaving the area, is under discussion. Huge amounts of plasma and whole blood will be required in the disaster, and antibiotics will be extremely important in combating secondary infection. Practically no antibiotics were available for use in the Japanese disasters. Consequently there is no precedent as to the possible reduction in morbidity and mortality when these materials are available. In many cases practically all nourishment will have to be given parenterally in the initial days and weeks. Sedation will be of prime importance.

If advanced warning of a potential attack is available, the individual may do certain things to reduce the possibility of injury, such as keeping away from windows, lying flat on the floor or ground, avoiding standing under overhanging

cornices, chimneys, and other heavy objects, finding refuge in underground installations or shelters; wearing light-colored clothing, not tightly attached to the body; being cautious in the use of food, water, or tobacco after detonation of the bomb; and seeking protection behind heavy concrete or lead construction.

An attempt has been made to show the background which potentially can produce a terrible emergency and to present a graphic picture of what would happen in such a disaster. Methods of dealing with it and offsetting many of its effects have been presented in brief outline. If the interest of the profession in this problem and the desire to meet it, understand it, and dispel fear of it have been increased, the purpose of this paper will have been accomplished.

BIBLIOGRAPHY

1. Office of Civilian Defense: Civil Defense for National Security. Washington, D. C.: Government Printing Office, 1949.
2. What You Should Know about the Atomic Bomb. Washington: Surgeon General of Army, The Pentagon, June 1948.
3. JACOBSON, L. O., STONE, R. S., AND ALLEN, J. G.: Physicians in atomic war. *J.A.M.A.*, 1949, **139**, 138.

SOME INJURIES OF THE KNEE JOINT*

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ALMOST every discussion among surgeons and most of the papers on surgical topics presented at meetings these days are centered about operative procedures, the use of gadgets and mechanical contrivances, and the good results obtained. We are living in a mechanical era generally, and the field of surgery is no exception and has been infiltrated with the mis-conceived idea that one need no longer use one's mental and physical faculties with the same intensiveness and to the same degree as our forefathers. This is an erroneous and unfortunate state of affairs, but it is true. Haven't you felt cheered, and relieved, to be shown a set of mechanical devices which you are told will reduce your worst fractures so easily in half the time usually spent, will allow your patient to be out of bed in "no time flat," and almost guarantees a union without deformity?

Before discussing specific problems in reference to the knee joint, I wish to spend a few minutes to emphasize some fundamental facts which in this modern, mechanical era are so frequently and easily forgotten. By virtue of improved surgical technics and new chemicals there has been a lessening of the "bug-a-boo" of all surgeons, infection, and many surgeons today tend to neglect some basic features of diagnosis so intensively taught and practiced by our predecessors. Instead they rely upon their operative acuity. Perhaps a little more analysis of the available facts might have saved a patient both the operation and any resultant complications. Believe me, I am not trying to be facetious, nor am I excepting myself entirely from this group,

although I endeavor constantly to keep myself from neglecting the established facts that anatomy, especially its mechanics, and pathology in its broadest sense, as well as other basic sciences, must be applied fully in every case in making a diagnosis, selecting the method of treatment, and rehabilitating the patient afterward. I am frequently astonished to note how meager a history has been taken in a case before operative exploration that perhaps might have been unnecessary or at least simplified. In brief, I wish to plead with you to analyze fully all the facts in the case as obtained from the patient (i.e., a good history), to study the anatomy of the area, gross and mechanical, to consider the various pathologic possibilities for the patient's age period, to be considerate of the tissues involved and the effects of the treatment applied, operative or otherwise, and to begin rehabilitation as early as possible consistent with all the elements of the case. Should I be ashamed to make the previous statements to Fellows of the American College of Surgeons? Perhaps I should, but daily experience indicates otherwise, and this is true especially regarding knee joint conditions.

The knee joint is a much more complicated structure than is usually imagined, and its actions are most intricate in spite of its apparently simple gross appearance. In view of the fact that most noninfectious lesions of the knee can be explained upon a mechanical basis primarily it behooves all of us to have a clear understanding of the normal anatomy of this joint and what changes occur in the various positions of motion under the stresses and strains exerted by the particular individual under study, how this patient's knee was being used just before and at

* Read at the Sectional Meeting of the American College of Surgeons in Washington, D. C., March 15, 1949.

the time of onset of the lesion, and what variations have occurred since. In knee joint lesions a full and accurate history from a dependable patient is worth more than any other feature of the examination and will often make the diagnosis almost certain if the physical findings are consistent. The attached bibliography will give you some references¹⁻⁶ of value as to knee mechanics.

Since derangements of the internal knee due to injuries and variations of the menisci (semilunar cartilages) are most common, perhaps excepting fractures of the tibial plateau and femoral condyles, I should like to describe several cases of interest. You will remember that most tears of the menisci occur between the ages of 16 and 35; a torn meniscus in a patient younger than 12 and over 40 is exceedingly rare, although I have recently seen one in a boy aged 9 and a man aged 50; these are "exceptions to prove the rule," however.

A man aged 32 injured his right knee when he slipped as he stepped from a pier to a ship and landed on the edge of the combing onto the bent right knee. The knee swelled rapidly for a day and then seemed to be all right for about 2 months. He was treated with heat, a cast, rest, etc. for 12 months and was finally ordered back to work and compensation discontinued. An analysis of his story and physical findings shows especially the description of repeated "locking and crunching" episodes and consistent localization of tenderness, with the accumulation of an excess of synovial fluid following each episode. A diagnosis of a torn cartilage was made and verified at operation. The cartilage was separated from its basal attachment in its posterior half and was removed, with prompt improvement in knee action. The apposing surfaces of the femur and tibia were shredded from the repeated grinding of the semilunar.

The various terms, "lock, crunch, click, snap and crack" are significant in suspected ruptures of the semilunars; they also occur at times in cases with loose bodies of other types, which

should of course be kept in mind, but variations in age and other features should allow differentiation.

A man aged 35 tripped over a truck brake-drum and fell onto the drum with his right lower leg twisted inward and under him. A pain developed in the outer side of the right knee, associated with much swelling due to excess fluid. Ever since, on squatting with the right knee fully flexed, pain developed repeatedly in the mid-outer knee space, and full extension was prevented by something locking the joint, apparently in the outer part; this combination could be repeated almost at will. The joint could be loosened by "wiggling and jiggling" the lower leg, when something could be felt to "clunk," with relief of pain and return of normal mobility. An additional complaint was some tenderness at times on pressure over the anterior part of the internal semilunar cartilage. To have both cartilages involved in the same knee at the same time is quite unusual, but this should have been suspected even so, on the basis of the history and the tenderness localized to the inner side. At operation a large discoid external cartilage was found, which had been torn from its base through its middle third, allowing it to buckle on full flexion and become displaced inward, thereby locking the joint. After its excision examination of the anterior part of the internal semilunar cartilage showed it to be torn free from its base for an inch from its anterior attachment. This cartilage also was removed.

Another interesting case was that of a man aged 39 who struck the inner side of his right knee when he missed the object which he was striking. Swelling of the knee due to excess fluid and localized swelling over the internal femoral epicondyle and under the tibial collateral ligament just at the joint line developed. Excess fluid disappeared from the joint, and the condylar hematoma slowly subsided, but the swelling of the subtibial collateral ligament (slightly fluctuant and cyst-like, $\frac{1}{2}$ by $\frac{5}{8}$ inch in diameter) remained constant and tender on pressure or on

tension of the ligament superimposed. Injection of novocain into this smaller swelling gave relief for 2 to 3 hours only, with recurrence of pain and gross swelling of the whole joint. A diagnosis of subtibial collateral bursitis was made with possible associated torn flap of semilunar cartilage projecting outward under the ligament in a pocket of synovia full of fluid. (This had been seen before or it probably would not have been considered.) At operation the displaced flap of cartilage was found and no specific bursa. A subtibial collateral bursa is extra-articular, and hence involvement of it should not cause synovitis, whereas the semilunar is intra-articular and damage to it should cause prompt fluid increase, as in this case.

A boy of 12 was diagnosed as having a torn internal semilunar cartilage after having his knee and leg twisted in football when an older and heavier boy fell on it. The knee refused to extend fully even under anesthesia, but there was no excess joint fluid; spot tenderness was localized to the subtibial collateral ligament area at the edge of the tibia. No torn cartilage was found at operation, but within the subtibial collateral ligament bursa there was a partially organized blood clot, which was just large enough to prevent the ligament from sliding forward on extension. Removal of the clot allowed the knee to extend immediately on the operating table, and complete recovery ensued. The error in this case was that a diagnosis of torn cartilage should not have been made in a 12-year-old except when the history and all symptoms and signs were incontrovertible. My only alibi for not spotting the true diagnosis is that this case was seen before discovery of the bursa was made by Dr. Brantigan and me, and its pathologic changes were identified as clinical entities. A torn cartilage with all features typical was recently removed in a boy of 9, which is the youngest case in my experience.

As I have stated above, lesions of semilunar cartilage usually occur in young people, mostly

during active athletics and especially when the individual is not in tip-top condition. I herewith solicit your help in spreading to high, prep school and college-freshman coaches the gospel that all knee injuries should be taken seriously until proven otherwise and that boys not in good training should not be allowed to participate in competitive athletics. A physician trained to evaluate traumatic effects should examine and control every knee case, especially if excess fluid remains more than a few days. More potentially good college athletes are ruined at least for competitive sports by virtue of careless or ignorant handling when in prep or high school. Proper care at this time may prevent the development of the so-called "trick knee," with its recurrent, prolonged disability.

Fractures of the tibial plateau with comminution or much depression of fragments should have an exploration of the semilunar cartilage, since one often sees the cartilage depressed into the bone cavity or caught under a loose fragment of bone. The exploration can be carried out at the same time that the plateau is replaced.

Fractures involving the joint surfaces of the femur or tibia very frequently result in painful, and/or limited motion after healing is complete usually both. This is especially true when the apposing weight-bearing surfaces of the femur and tibia are involved, namely the inner 1 to 1½ inch of the bone ends, along the sides of the tibial spines particularly.

The subpatellar fat pad is subject to swelling or hypertrophy due to acute or chronic contusion, occupational or otherwise, and can be pinched between the femur and tibia when compressed by the tense patellar tendon in active extension or full flexion with weight-bearing. Failure to subside with immobilization indicates operative excision of the excess fat and synovia. It is a real clinical entity and should not be ignored when cause and effect coincide.

Fractures of the patella, especially comminuted, require mature consideration, since the patella must fit accurately into its femoral groove

and its articular surface must be smooth to avoid friction effects. Excision of part or all of the fragments is justified if accurate reposition of fragments cannot be obtained. A hypertrophied patella gives almost as much trouble as an irregular articular surface. Excision does not fully preclude late arthritic or osseous changes, however, and a guarded prognosis should always be given.

In all knee cases redevelopment of the quadriceps muscles is difficult but essential. Exercises for this should be taught as early as possible, with the use of physio- and occupational therapy to their limit.

Because of the relatively short time allowed for so large and complicated a subject, I have limited my remarks to lesions which require full knowledge of and careful analysis of the anatomy of the knee, especially relative to its mechanics, and the finer points of differentiation based upon them. If I have stimulated you to be more understanding of the basic relations of anatomy to clinical problems, to expand your history-taking to develop explanatory facts in this regard, and to study the physical findings as variations from the expected normal, I will feel amply repaid.

SUMMARY

In summary then may I list a few high points to be remembered:

1. Use new apparatuses to their fullest extent, but be sure you understand their limits of use. Do not blame the machine when things go wrong. Maybe you are to blame.

2. Know your anatomy, especially as it applies mechanically, in order that you may evaluate the abnormalities presented.

3. Take a good history, paying careful attention to the patient's analysis of events and symptoms. He is living with the knee and can often

give the clues to the diagnosis. Listen to him. It is good psychology, if nothing else.

4. Examine the knee with keen and thoughtful attention. Mentally analyze the variations from the normal as you examine. Use to the fullest the senses God gave you before development of accessory methods, such as X-ray examinations, etc.; let them corroborate your impressions rather than cause you to try to fit the facts in reverse.

5. Learn to know the law of averages, especially as to the grouping of pathologic conditions into age periods. It is not absolute, but will save you much time and worry.

6. Treat the problem at hand on its own merits. Do not try to make it fit a pattern.

7. Rehabilitate the patient to the fullest, physically, mentally, and vocationally. Remember you are treating a patient with a lesion, not just a lesion alone.

The day when the surgeon's responsibility is limited to the local injury and ceases when that is healed has passed, if ever it were present. It now is necessary for the surgeon to care for the local part and the patient as an individual, to estimate his possible disability, now and for the future, and to help to readjust him in industry. Every means at our disposal must be used to gain this end.

BIBLIOGRAPHY

1. BRANTIGAN, O. C., AND VOSHELL, A. F.: Mechanics of ligaments and menisci of knee joint. *J. Bone & Joint Surg.*, 1941, **23**, 44.
2. BRANTIGAN, O. C., AND VOSHELL, A. F.: Tibial collateral ligament; its function, its bursae, and its relation to medial meniscus. *Ibid.*, 1943, **25**, 121.
3. VOSHELL, A. F., AND BRANTIGAN, O. C.: Bursitis in region of tibial collateral ligament. *Ibid.*, 1944, **26**, 793.
4. BRANTIGAN, O. C., AND VOSHELL, A. F.: Ligaments of knee joint; relationship of ligament of Humphry to ligament of Wrisberg. *Ibid.*, 1946, **28**, 66.
5. ABBOTT, L. C., AND CARPENTER, W. F.: Surgical approaches to knee joint. *Ibid.*, 1945, **27**, 277.
6. LAST, R. J.: Some anatomical details of knee joint. *Ibid.*, 1948, **30-B** 683.

TENDON INJURIES*

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IN THIS brief presentation, an attempt will be made to discuss tendon injuries, particularly from the viewpoint of the initial care and repair of fresh tendon injuries.

PRINCIPLES OF TREATMENT

Lacerated tendons should be treated with the same detailed care and caution as a compound fracture. At times tendon injuries are seen with compound fractures. The initial care is most important and often will determine the ultimate outcome.

The fundamental principle of cleaning up the wound cannot be overemphasized. It is essential to examine accurately and evaluate the extent of the wound. The depth of the wound should be determined, and the extent of damage to the nerves, blood vessels, and tendons should be determined. A neurologic examination should be performed before any attempt is made to repair a lacerated tendon. Often the surgeon may not appreciate that there is nerve damage and will be embarrassed to have it brought to his attention several days after his initial treatment. It is inexcusable, Bunnell¹ states, to miss severance of main tendons and nerves on a preoperative, clinical examination.

The question always arises as to the time limit of safety in the initial repair of tendons. Arbitrarily 6 hours is the limit of safety of initial definitive repair of tendons. Some surgeons feel that it is safe to repair a tendon even 24 hours after the injury. Certainly, the possibility of complications, such as infection, increases in direct proportion to the time from injury to repair. However, one must use his own judgment

in each and every case, evaluating the extent of damage to the tissues, gross contamination of the wound, etc. In obviously contaminated wounds primary tendon suture and closure of the wound, even within the first 6 hours, may be dangerous. As the age-old saying goes, "Each case is a case within itself."

If a wound is seen late, or if there is a question in the mind of the surgeon as to the cleanliness of a wound, it is better to just clean, débride and suture the wound, leaving the repair of the deeper structures until later. Tendon ends and nerve ends may be anchored to surrounding deep structures with a single loop of stainless steel wire to prevent retraction of the ends. This will facilitate subsequent surgery. All tendons, nerves, bones and joints should be covered with skin. Relaxing parallel incisions may be desirable to accomplish this.

A question as to the choice of anesthesia is often brought up in the repair of tendons. It is believed that general anesthesia, in one form or another, is the anesthesia of choice. This permits the surgeon to work more freely and to accomplish a more thorough cleansing and débridement of the wound. It may well be that local, regional blocks may suffice in certain cases.

It may be in order to discuss for a few minutes the anatomy of tendons. A tendon that passes around corners or curves, such as in the fingers or foot, is surrounded by a sheath. The tendons that pull straight pass through areolar tissue, which is known as paratenon. This somewhat fills the space between the tendon and the immovable fascial compartment through which tendons run. The central part of the areolar tissue, which is connected to the tendon, moves with it, but the peripheral part does not. A tendon sheath

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may be compared in its makeup to the peritoneum, in that it consists of a visceral and a parietal portion. Between these layers and connecting them is the mesotenon. It is through this mesotenon that the blood vessel enters to supply the tendon. According to Bunnell,¹ in the tendon sheath of the fingers the mesotenon is represented by the ligamenta brevis and longus. In the fingers the tendon sheaths are smooth and lined with synovial membranes to minimize the amount of friction of the tendons within the sheath.

Some fundamental principles in the preparation of a wound for surgery are:

1. The wound should be kept covered with sterile gauze when the surrounding skin is thoroughly shaved and cleansed with an adequate amount of soap and water. If the skin is soiled with grease, a solvent, such as benzine or ether, should be used.

2. An adequate skin preparation should be done with whatever antiseptics the surgeon is accustomed to using.

3. All devitalized and obviously soiled tissues should be débrided. The instruments used in so doing should then be discarded.

4. The wound should be adequately lavaged with sterile saline solution. This procedure may be repeated throughout the operation.

5. It is advisable not to instill chemicals into the wound. Chemicals may cause a chemical necrosis of the tissues and this may be the basis for a wound infection.

6. The goal is to convert the wound into a surgically clean wound.

7. The use of antibiotics is of inestimable value as an adjunct to but not as a substitute for fundamental, sound surgery.

What is the best suture material to use in the repair of tendons? Once the tendon has healed, any suture material remaining may be a source of irritation and fibrous tissue formation. As little foreign suture material as possible should be used. The desired feature of any suture material is minimal reaction and irritation. Good, careful, delicate surgical technic should be used in the

repair of tendons. Sutures carelessly placed about tendons will cause necrosis of the tendon. Stainless steel, removable sutures are the sutures of choice. Catgut suture material should not be used in the repair of tendons. They cause too much reaction. Silk is preferable to catgut. Silk is irritating, however, and, if infection should occur, the surgeon is faced with a sloughing of tendons, and wounds "spit out" silk sutures for weeks and months. Where the tendons glide freely, as in the forearm and the palm of the hand, silk sutures may be used. It is also possible to use a no. 34 stainless steel wire suture and leave the suture in permanently. The removable "pull-out" suture of Bunnell has many advantages over the use of the silk that remains in the tendons. Tantalum wire does not have the tensile strength of stainless steel wire.

In the flexor tendon in the hand, a no. 34 wire is used. According to Bunnell, it breaks at 7 pounds or, as a knot, at 5 pounds. For smaller tendons, no. 35 wire is adequately strong. In large tendons, such as the biceps or the Achilles tendon, no. 30 or no. 28 wire is used. Stainless steel wire must be handled carefully and not allowed to kink, since it may break.

PATHOLOGIC CHANGES IN TRAUMATIZED AND INFECTED TENDONS

The tendons behave differently depending as to whether the tendon is severed in a sheath or in the paratenon. Proliferation of the tendon ends is seen where the tendon is surrounded by paratenon. The ends of the tendon tend to round off in the sheath. In infection within a sheath the tendon becomes bound down by adhesions. Because of the swelling of the infected tendon within the sheath, ischemia and necrosis of the tendon itself results. In severed tendons the proximal portion retracts by the contraction of the muscle itself. The flexor tendons in the forearm and hand contract more than do the extensor tendons. It is important, when suturing a tendon, not to leave any part of the tendon not attached to the corresponding part. If this is not done,

there tends to be a proliferation of the ends of the tendon, and the ends will adhere to the surrounding soft tissue.

It is the consensus that it is difficult to secure good function where a flexor tendon is severed in its sheath any place in the finger. It is probably better in all cases of severed flexor tendons of the finger to remove the profundus tendon and replace it with the sublimis tendon, using a pull-out type of suture. Koch² is less pessimistic than others about the repair of flexor tendons. He feels that, if the finger has a good blood supply and does not have extensive scar formation and there is sufficient tendon with a smooth uninjured synovial covering, it is possible to obtain a good result by suturing the divided flexor tendon. In reporting on 46 cases of divided flexor tendons, Koch stated that only 5 were seen early, that is, within a few hours after injury. The others were cases of secondary repair, 14 of which could be repaired by approximation and 27 of which required tendon grafts, the sublimis tendon being used as a graft extending from the profundus tendon in the palm down to the distal phalanx.

Another method of fixing tendons is by the use of a transfixion tension needle. Gebhard³ advocates this method. He uses a single loop of fine silk or cotton to approximate the tendon end and then passes 1 or 2 transfixion pins through the proximal portion of the tendon. This is to prevent the retraction upward of the proximal fragment. This procedure, however, is adaptable only in certain anatomic locations. Littler⁴ preferred the use of free tendon grafts with a pull-out suture through the tip of the finger. May,⁵ in addition to using the pull-out wires, used loose areolar tissue wrapped about the tendon graft to prevent adhesions of the tendon within the sheath. He describes drilling a hole through the terminal phalanx to fix the tendon graft to the tip of the finger.

Too much emphasis cannot be placed upon the advisability of immobilizing the hand in a functional position. Too prolonged immobilization

results in stiffened hands. Bunnell⁶ emphasizes the advantages of functional splinting of the hand.

HOW TENDONS HEAL

As a general rule, tendons require about 3 weeks to unite sufficiently to permit motion. During the first week a gelatinous substance joins the tendon ends together, and into this the connective tissue cells grow. There is swelling and redness about the tendon suture. During the first week there is little strength present. According to Mason⁷ there is a rise in the tensile strength, starting the fourth or fifth day, and this continues until about the sixteenth day. During the second week there is connective tissue proliferation. Between the tenth and fourteenth days, according to Bunnell,¹ there is a bridging of the gap. There is still weakness in the junction of the tendon ends. During the third week there is more firmness and less swelling and redness about the junction of the tendon ends, and tendon fibers begin to pass over the suture line. During the fourth week there is good strength, but the tendon is not yet normal in its strength. Mason⁷ feels that function used wisely is an aid in tendon repair. Another question always presents itself and that is: When should motion be begun in sutured tendons? It has been shown that the immobilized tendon shows less tissue reaction and attachment to its surrounding soft tissues. Activity during the first 15 days is apparently detrimental. After 21 days restricted, guarded exercises may be begun.

TENOSYNOVITIS

Tenosynovitis may be nonsuppurative or suppurative. In the nonsuppurative type of tenosynovitis there are pain, tenderness and crepitation, both palpable and audible. This state may result from a direct injury to a tendon or by overuse of a tendon in performing some unaccustomed function. The muscles may also become involved in this condition. The extensor tendons of the wrist and fingers are more fre-

quently involved than are the flexors. Quervain's disease is a traumatic tenosynovitis of the abductor pollicis and extensor pollicis brevis tendons. In these cases, there is edema of the tendons, the epitenon, the sheath, and the paratenon. Microscopically, deposits of fibrin are seen in the paratenon. This probably accounts for the crepitation that is so characteristic in these cases.

In mild cases no specific treatment is indicated. In the more severe cases immobilization in a plaster cast, applied rather tightly to minimize swelling, is the procedure of choice. Howard⁸ has shown that, in well-casted cases of tenosynovitis, the disability average is 11.6 days as compared to 22.6 days when the hand was thoroughly splinted on a board. When physiotherapy alone was used, the disability average was 45.1 days. Too prolonged immobilization must be discouraged.

SUPPURATIVE SYNOVITIS

Infection of the tendon sheaths requires immediate surgical drainage and supportive treatment, consisting of chemotherapy and application of heat. At times the spread of the infection is rather rapid. If the infection is in the thumb or little finger, it may spread to the radial or ulnar bursae. In the index, long or ring fingers, the infection may break through into the thenar and midpalmar spaces. Flynn⁹ analyzed 100 cases of acute septic tenosynovitis; 18 per cent of these involved the thumb with spread to the bursa in half, and 6 per cent involved the little finger with spread to the ulnar bursa.

These cases usually result from a puncture wound in the volar crease in a finger. If early surgical drainage is instituted before the tendon is involved, little disability may result. An immediate midlateral incision should be made from the distal crease of the finger to its base on one side only. In the thumb an incision on the ulnar side is better. If a joint is involved, except in the case of the thumb, it may be better to amputate through the joint.

REPAIR OF LARGER TENDONS

At times one of the larger tendons, such as the biceps, quadriceps, patellar or tendo achillis, may be severed or may rupture spontaneously. Repair of these is a "must," and the earlier, the easier. Severed large tendons present little difficulties in their early repair. At times, however, the tendon is found to be rather shredded on its examination and the ends must be enclosed in a purse-string suture before they can be approximated. This is particularly true in the case of the spontaneous rupture of the tendons. In contrast to the clean-cut bundles of tendon fibrils the ruptured tendons present a gross picture of many shreds. A large tendon may rupture at (1) its musculotendinous junction, (2) in its mid-tendinous portion or (3) at its insertion into the bone. The old, unrepaired, ruptured, quadriceps or tendo achillis requires replacement of the scarred, fibrous tissue with a medium such as fascia lata. In the repair of large tendons McLaughlin¹⁰ advises the use of a distantly-placed wire or staple suture to minimize the tension in the repair of these tendons. It is interesting to note that, on inspecting the old, unrepaired, torn tendo achillis, there is no gross interruption in the continuity of the tendon but there is a replacement of the normal tendon with scar tissue with a resulting net loss of plantar flexion and an inability to stand on the ball of the foot. The result in 6 such cases treated by replacement of the scar tissue defect in the tendon with fascia lata has been uniformly most satisfactory.

SUMMARY

A laceration of a tendon should not be merely repaired until an adequate evaluation of the integrity of the tendon and nerve functions is carried out. One cannot "judge a book by its cover."

Wound hygiene is important. Wounds involving tendons should be handled as one would handle a compound fracture.

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CARCINOMA IN YOUNG ADULTS*

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WE SURGEONS in the military service are unique, to a certain extent, in that we have large numbers of patients within the age group which are considered to be young, active, and comparatively healthy individuals.

From the age of 16 onward nutrition is adult in type and growth is becoming more stabilized. Tumors which have been peculiar to childhood decrease, apart from sporadic cases, while the precocious adult-type neoplasms may occur from then onward. We must search adequately for those cell rests of the embryonal nidus in the age group from 18 to 30, in which the early carcinomas may occur.

I shall not consider the malignant neoplasms of early childhood which, in certain types, are rather rare in the latter years of life, such as retinoblastoma, malignant neurocytoma, and adenosarcoma of the kidney. As a matter of fact, the most common tumors in youth, say between the ages of 15 and 35, are the various types of sarcoma of bone, since the greatest change in the bones, and almost the entire process of osteogenesis, is during this early period, mainly between 16 and 25. Actually, the incidence of carcinoma reaches the peak after the age of 40. However, the site of the carcinoma and the type must be considered.

CARCINOMA OF THE GASTROINTESTINAL TRACT

In youth we do not note the marked number of disabilities to which it is liable. For instance, we do not note constipation as often as in later life, nor do we note the multitudinous cases of

diverticulosis and diverticulitis. The frequency in the different parts of the colon is the same in young adults as it is in the older age groups. My study of a series of 200 cases of carcinoma of the colon in young adults shows that the tumor has been in the pelvic colon in 107, in the descending colon in 32, in the ascending colon in 20, in the transverse colon in 18, in the cecum in 11, in the splenic flexure in 10, and in the hepatic flexure in 2. The type carcinoma does not differ from one age to another. Clinically, we generally distinguish two types: one, an annular scirrhous carcinoma, typically met in the distal part of the colon and generally going on to obstruction; the other the fungating, ulcerative tumor, typically met in the proximal part of the colon, which is very likely to bleed, break down easily, cause anemia and weakness, but generally does not obstruct the bowel until very late.

From the pathologic standpoint we encounter the polypoid type of malignant papilloma, of comparatively slow growth, which in young people may spread early and far. The signet-ringed mucoid carcinoma, which of course spreads rapidly with great malignancy, infiltrating speedily and filling the lymphatics with fast-growing cells is occasionally seen. It is formidable to the eye but is quite favorable for surgery if discovered in an early stage. The tendency for cancer to spread circumferentially is not quite the same in all ages. The tumor is found around the wall of the colon, forming an annular constriction, and this disease does not tend to spread longitudinally except in cases of mucoid carcinoma, in which submucous spread along the bowel is a feature. Metastasis to the liver by the blood stream is very prone to occur when the

* Read before the Society, April 13, 1949, as part of a Symposium on Cancer.

disease affects the distal colon in young subjects. In a few cases it has been noted that the first evidence of trouble has been the appearance of jaundice, with marked hepatic enlargement.

As is to be expected, the clinical symptoms vary according to the type of growth and its location. A bulky, fungating and ulcerating but nonconstricting growth, particularly if situated in the proximal part of the colon, may cause few abdominal symptoms. However, as a result of repeated small hemorrhages, septic absorption and tendency to diarrhea, progressive weakness and anemia are the dominant features in the picture.

The combined civilian and military carcinoma rate, which includes dependents of troops, is approximately 15 deaths per 100,000 a year from cancer and other malignant tumors, in the age group under 35 years. The evolution of the diagnosis and the surgical treatment of cancer of the bowel during the past few years is a striking example of the progress of surgery, particularly in certain broad principles which should guide all operative procedures on the large bowel. As a general rule, there are certain factors favorable to successful surgery in this disease, viz., its relatively slow growth and its tendency to remain localized for many months.

Carcinoma of the colon has a long latent period during which it causes few, if any, recognizable symptoms and little, if any, deterioration in health. To be carcinoma-conscious, as we must be for all ages, one must investigate the bowel thoroughly and perform an adequate examination including X-rays. Unless there is a large ulcerating surface, or a partial obstruction from the narrowing of the lumen of the bowel leading to signs and symptoms of obstruction, usually the patient is not alarmed or incommoded and sees no need for medical advice.

CARCINOMA OF THE APPENDIX

The incidence of mucocele of the appendix, with pseudomyxoma peritonaei is 10 to 13 per cent of all appendices removed. The average age of occurrence is between 20 and 30 years. The

growths are clinically benign. The lesion is usually at the tip of the appendix and almost never shows a tendency to encroach upon the peritoneal covering. It has been stated that the typical carcinoma of the appendix has never produced metastases in any recorded case, nor has it ever caused the death of a patient.

The main point here is not carcinoma of the appendix but appendicitis as a secondary feature of carcinoma elsewhere in the large bowel, the "appendicitis" being a manifestation of colonic congestion and a secondary manifestation of partial obstruction elsewhere in the bowel. There have been quite a large number of patients with carcinoma, comparatively speaking, whose first signs and symptoms were exclusively those of acute appendicitis and in whom at operation an "acute appendix" found. In the past four years I have noted 11 patients in whom this phenomenon has been present. A patient comes in with signs and symptoms of an obstructive type of acute appendicitis, is operated on and an "acute appendix" found and removed, but mild obstructive signs have occurred later. Eventually, the patient requires reexamination, X-ray studies, and evaluation, with the diagnosis of carcinoma of the bowel resulting. This condition has so frequently been called to my attention, and so forcibly, that I consider it a routine matter to inform all patients upon whom I have operated for appendicitis that they must return for examination within a six months' period. At this time a thorough gastrointestinal examination must be made, with use of the proctoscope and barium studies, to rule out any possible obstruction from neoplasm of the gastrointestinal tract.

In some patients there is only an increasing difficulty in emptying the bowel, considerable trouble with flatulence, occasional griping pains associated with borborygmi, and, occasionally, obstinate constipation, or a brief diarrhea. For adequate examination of the large bowel, a barium and tannic acid enema, and air contrast studies are very valuable adjuncts to proper diagnosis, especially of diverticulitis, diverticulosis, polyp and

small tumor masses. A barium enema examination alone does not suffice. The proctoscopic and the sigmoidoscopic examination should always be made. Two illustrative cases are presented.

R. B., a man aged 32 years, had always been in good health without gastrointestinal complaints until December 5, 1947, at which time he noted "gas" pains in the upper abdomen during the day. They were not very severe, and he had no other complaints until December 13, 1947, at which time he had severe epigastric pain that lasted 2 hours; however, he felt well afterward, eating regularly and having normal bowel movements. The next morning he developed generalized abdominal pain which became localized in the midepigastrium. He consulted the surgeon at a Station Hospital. He was released but later returned with nausea and vomiting and was admitted to the hospital there. Because of the persistence of pain he was transferred to our hospital and admitted with a diagnosis of acute appendicitis. The patient's mother had gastric carcinoma and died while he was in the hospital.

The physical examination was normal except for tenderness in the right lower quadrant of the abdomen and around the anus and rectum on the right. Rebound tenderness was present but no rigidity.

The urinalysis was essentially normal. The blood picture on admission was normal except for a white blood count of 20,800, which immediately before operation rose to 25,500, with 82 per cent neutrophils. Following operation the white blood count was 10,000 with 58 neutrophils. Other laboratory procedures were within normal limits.

An appendectomy was done immediately, and an acute gangrenous and suppurative appendix was removed. The patient did not progress as well as was expected and, following bouts of continued nausea and vomiting, with no alleviation by any palliative measures, an exploratory laparotomy was performed on January 1, 1948, at which time a diagnosis of intestinal obstruction secondary to appendectomy was made. At the time of the laparotomy adhesions in the ileocecal area were released. No other findings were recorded. The patient was returned to his ward; however, he still did not progress well, having all signs and symptoms of an almost complete obstruction. On January 9, 1948 a barium enema revealed a constricting lesion in the descending colon. On January 12, 1948, following barium enema examinations and flat plates of the abdomen, the diagnosis of carcinoma of descending colon with obstruction was made, and a cecostomy was carried out. Following this, many laboratory studies were made, confirming the diagnosis of constricting annular carcinoma of the descending colon, 4 inches distal to the

splenic flexure. Rectal polyps of a benign type were found on sigmoidoscopic examination, which were subsequently removed. On January 26, 1948 the sigmoid colon was resected and the primary anastomosis accomplished. At the time of operation there were many metastatic nodules removed, and the diagnosis of adenocarcinoma, grade III, was made. The patient then progressed well with slight exacerbations due to transfusion reaction and occasional hypersensitivity from drugs. He was presented to the Tumor Board on May 4, 1948, which recommended that, inasmuch as this was a surgical case, the future management should be at the discretion of the Surgical Service. On May 6, 1948 he had an excision of rectal polyps by snare, and the pathologic report revealed benign adenomatous polyps. He was sent on sick leave on June 4, 1948 for ten days; however, he returned to the hospital, and on June 24 he was again taken to surgery because of a hard linear area occurring in the first incision for laparotomy. This operation revealed a calcified scar in the right rectus, intra-abdominal adhesions, and generalized carcinomatosis of the mesentery, intestine and peritoneum. Pathologic section of a nodule revealed adenocarcinoma. Supportive therapy was given. The patient noted ribbon stools following the resection and end-to-end anastomosis. If it was assumed that, rather than secondary metastatic involvement, this was probably due to a continuous silk suture being placed around the intestine at the time of anastomosis. Following the last operative procedure on June 24, 1948 the patient had an uneventful convalescence and was subsequently given sick leave again, at which time he felt somewhat weak. He was not losing weight, however, remaining at 135 lbs., and he states he is not losing weight at the present time.

E. S., a 19-year-old white man, died February 14, 1949, after a lifetime of colonic disease. When he was 5 a diagnosis of ulcerative colitis was made. Later examination revealed polyposis of the cecum. He was bed-fast for 2 years between the ages of 5 and 7. The family history was of note, as both the maternal grandfather and grandmother had periods of diarrhea, dysentery, and a diagnosis of "bloody flux." There was no family history of carcinoma. The patient was taken to a clinic after the watery and bloody stools persisted for over a year. It was there that a doctor made the diagnosis of idiopathic ulcerative colitis. The patient was kept on a soft, low residue diet for 8 years, and the stools gradually decreased in number to average 1 a day. Approximately one half the time the stools were formed, the others loose. The patient continued with a dietary regimen prescribed by various doctors and clinics, and worried his way through until 1947, at which time he was a premedical student.

At this time the stools became more constantly loose and he began to lose weight. The patient was admitted to a hospital, when he had signs and symptoms of acute appendicitis. An appendectomy was performed April 20, 1948; however, the patient did not convalesce well and complained of a persistent mild "stomach-ache" with abdominal discomfort radiating from the midepigastrium. He was then transferred to another hospital. Because of the fact that he was known to have polyposis of the colon, it was felt that further study was indicated and he was transferred to our hospital.

On arrival at the hospital he complained of a persistent mild ache in the center of the abdomen. This persisted, and X-ray films revealed partial obstruction of the ileocecal valve. A mass became palpable in this region, and on May 24, 1948 the patient was taken to the operating room and an exploratory operation performed. This revealed an infiltrating growth in the cecum which appeared malignant. In addition to this, 2 polyps were noted in the transverse colon. Accordingly, a right colectomy with an ileotransversostomy was performed. The patient made an uneventful recovery except for a moderate-sized stitch abscess which drained and was entirely healed at the time of discharge. The patient was released and returned for a postoperative check and barium enema on July 8, 1948. As a final result the laboratory has reported a moderately well differentiated, infiltrating adenocarcinoma of the cecum, benign polyps of the ascending colon, ulceration of the ileum, cecum, and ascending colon, and lymph nodes showing reactive hyperplasia. The patient was discharged June 29, 1948. Following his last abdominal operation he has had a residual sinus tract which has persisted to drain. On October 18, 1948 the sinus tract was exteriorized. A deep tract about 4 cm. in width throughout extended from just beneath the fascia down to the region of the lower pole of the right kidney. This was opened wide and inspected thoroughly. No gross evidence of malignancy was found; however, chronic granulomatous tissue was curetted from the walls of this tract. The lateral wall of the longitudinal sinus tract was sutured to the skin on either side so as to leave an open area of the entire sinus tract. Since that time the patient continued with his chronic debilitating disease. The sinus tract persisted, and the drainage was continuous, fecal and purulent. On December 24, 1948 an exploration of the left rib on the right side with biopsy of necrotic material and aspiration through the diaphragm was performed. The rib was noted to be very necrotic and eroded. Immediately beneath this area necrotic neoplastic tissue was encountered, a portion of which was excised for frozen section and reported as carcinoma. The condition of the patient continued to wane.

CARCINOMA OF THE RECTUM AND THE ANUS

Malignant tumors which are situated partly in the rectum and partly in the anal canal often exhibit features of special surgical interest. In the first place, the clinical diagnosis is often difficult, especially in the earlier stages of malignancy. There is a question as to whether a malignant tumor is a columnar-cell carcinoma extending down from the rectum or a squamous-cell carcinoma spreading up from the anal canal. This can be settled by biopsy, but the microscopic examination of sections of tumors from this region not infrequently reveal an unexpected type of neoplasm. Tumors which arise at the mucocutaneous junction in any part of the body tend to be of mixed variety, and the anorectal region is no exception to the rule. For all these reasons, I thought it would be of interest to make a survey of the pathology of cancer of the anorectal region. I have analyzed some facts revealed by the pathologic examination of the 200 consecutive cases in military installations in which radical excision was done.

In each case the malignant growth was situated partly in the rectum and partly in the anal canal. It is well known that carcinoma of the rectum is commoner in men than in women, and in a nonmilitary series of 1,000 patients there were 72 per cent in males and 28 per cent in females. In this latter group, however, the average age at the time of diagnosis was 54 years, approximately the same as that for rectal cancers in general. However, 10 per cent of this group were between the ages of 19 and 35. In the series of the 200 tumors more than 90 per cent were columnar-celled or adenocarcinoma which had extended down from the rectum and begun to trespass into the anal canal. Only 4 were pure squamous-cell growths extending up from below. In 6 cases the tumor was of mixed histology, the upper part being adenocarcinoma and the lower squamous. Even by careful inspection of these mixed tumors, one cannot recognize any difference between the epithelial constituent of the growth whatsoever. In 2 cases there were no

lymphatic metastases, but in 1 there was evidence of venous spread. In 2 cases with lymphatic metastases some metastases were squamous and others were adenocarcinomatous in type.

The most probable explanation of the mixed tumors is that they are formed by the fusion of 2 separate malignant growths, 1 of which arose above and the other below the anorectal line. Most recent studies show that in their earliest phases the malignant tumors are often multifocal in origin. As these small initial foci of malignant growths enlarge, they fuse together, making a single tumor. The parts arising from above and below the anorectal line retain these distinctive histologic features of the site of origin, although now compounded together into a single tumor. Columnar- and squamous-cell carcinomas are the commonest manifestations of malignancy in the anorectal region, but other varieties of malignant tumors may also occur. In fact, this mucocutaneous junction may be described as fertile soil for pathologic curiosities. A transitional-cell type of carcinoma is by no means rare. Melanoma, lymphosarcoma, fibrosarcoma, and teratoma seem to be commoner in this situation than elsewhere in the rectum or anal canal. The surgical treatment, of course, in all forms of malignancy so far mentioned, is the same, prompt and radical excision.

THYROID CARCINOMA

Thyroid carcinoma is more common in patients with fetal adenoma, intracystic papilloma and colloid adenoma. In the young age groups the intracystic papilloma is the most common precancerous lesion. In our experience all intracystic papillomas between the ages of 13 and 35 must be looked upon with a high degree of suspicion. Unlike other benign papillary lesions, the younger the patient the higher the incidence of malignancy in these intracystic papillomas, in our experience.

Thiouracil inhibits the function of the adult thyroid cell and thereby brings about hyper-

plasia of the germinal epithelium in the thyroid. This hyperplasia, which can be produced in animals, has gone on to malignancy when aminoacetyl fluorene has been added to the diet. This was first reported by English workers. Segar-Jones also showed that thiouracil could produce leukemia in animals. Like radioactive iodine, which is a form of radioactivity, it can lead to precancerous hyperplasia. It is not altogether a harmless therapeutic agent.

An illustrative case of carcinoma of the thyroid follows.

C. S., a 29-year-old man, stated that for over 2 years he had been aware of a progressive enlargement of the glands of his neck. The patient had felt well at all times, had not noticed any weight loss, and had been on continuous duty. He first consulted a physician on December 30, 1947. A biopsy was taken and sent to the pathology laboratory for analysis and report. He was then admitted to a hospital on January 13, 1948, where radiologic studies showed no evidence of mediastinal involvement or neoplastic process involving the long bones and no esophageal deviation. A soft, rounded density measuring 3 by 5 cm. was noted anterior to the trachea about 2 cm. below the thyroid cartilage. On January 19, 1948 a biopsy was performed of the mass on the right side and a diagnosis of papillary cystadenocarcinoma probably metastatic to lymph nodes made. The patient was seen by the Tumor Board at that hospital, and it was recommended that he be transferred to our hospital for further observation and treatment. The patient was admitted January 25, 1948.

He was a well-nourished, brawny individual, who had the appearance of a well developed athlete. The physical examination was essentially negative except for the neck and marked but well healed acneform scars over the neck, chest and shoulders. There was a marked nodular enlargement of the base of the neck inferior to the posterior edge of the sternocleidomastoid muscle, and this mass was approximately 4 by 5 cm., the size of an egg. On the left there was a partially healed, transverse incision. The mass was very firm, not freely movable, and not fixed to the skin. It was apparently fixed to the thyroid gland and moved slightly with swallowing. The nodules were comparable to those that one finds in both the superficial and deep lymphatics of the neck and entire cervical region. They extended along the border of the sternocleidomastoid muscle posteriorly and seemingly involved the postero-inferior auricular group of lymphatics. This condition was manifested bilaterally. The voice had not

been impaired, and the patient swallowed without difficulty; however, he felt pressure upon his throat. There was no evidence of ulceration. No bruit could be detected to auscultation, and no abnormal pulsations could be observed. The mouth was clean, normally moist, the teeth were well placed, and there was no caries. There was no nasopharyngeal obstruction or inflammation. The larynx was clear, and examination did not reveal any pathologic condition intra-orally. The vocal cords were mobile and of normal color.

Laboratory reports were essentially normal throughout the patient's stay in the hospital. Urinalysis consistently showed white blood cells, and the Sulkowitch test was positive. The blood calcium was normal following extirpation of the metastatic lymph glands and thyroid. The basal metabolism rates following operation fluctuated, but were generally low, minus 20, minus 33, and minus 10. Kahn test of the blood was negative. X-ray films of the chest, skull and both humeri were negative.

The patient appeared before the Tumor Board, and it was decided that bilateral neck resection should be performed. On February 16, 1948 a right hemithyroidectomy was performed with total right radical neck dissection, under gas, oxygen, and ether anesthesia. The patient recuperated uneventfully in minimal time, the scar healed by primary intention, and on March 23, 1948 a left subtotal hemithyroidectomy with a modified neck dissection was performed under endotracheal gas, oxygen, and ether anesthesia. The patient convalesced from this quite uneventfully and with no relapses. The right vocal cord was temporarily affected, and the voice was somewhat harsh for a period of 3 weeks but later returned to normal; however, there remained a limitation in the voice range, and at present the patient cannot increase the range over the speaking voice. Pathologic diagnoses were (1) papillary cystadenocarcinoma of the thyroid gland, and (2) metastatic cystadenocarcinoma of the regional lymph nodes, on both the right and left specimens. The patient was given blood transfusions as indicated, basal metabolic studies as indicated, and was sent on sick leave. He was later admitted to a cancer research clinic where he was studied and treated with radio-iodine and was discharged July 28, 1948 with the statement that his prognosis was excellent, and that although some tumor might possibly remain in the neck it could be removed if and when it became apparent. In view of the extensive radical procedures which have taken place in this young man and the diagnosis of papillary adenocarcinoma, he will have to be under constant surveillance for the remainder of his life. There is no obvious disability at the present time, but he should have frequent examinations.

MIXED TUMORS OF THE PAROTID

Mixed tumors of the parotid occur at any age, and certain numbers of them are seen in military practice. They are usually benign but have a tendency to recur, and some of them are true basal-cell carcinomas. It is important to bear in mind that the chance of cure is greatest when the surgeon is operating for the first time. Mutilations become more pronounced with successive operations.

MELANOMAS, LYMPHOMAS AND TESTICULAR TUMORS

Melanomas, lymphomas, and testicular tumors are prominent among the malignant growths in the age group under discussion. The testicular tumors particularly concern us because of the predominance of males. The cell of origin of these testicular tumors is totipotent. They differentiate in 3 directions:

1. Toward placental elements. These are highly malignant and incurable.

2. Toward the 3 germ layers of the embryo. Here there are 3 gradations, the most malignant of which is the embryonic carcinoma. The next in degree of malignancy is the teratocarcinoma; and the most differentiated form is the adult teratoma or cystic teratoma. Only the adult teratomas in this group have a fairly favorable prognosis, with 25 to 30 per cent being permanently cured by orchiectomy and postoperative irradiation.

3. The third differentiation is the setting aside of sex cells for future generations. From this line of differentiation the seminomas arise. These cells, in other words, tend to reproduce themselves only. They are curable in 30 to 40 per cent of the cases.

LYMPHOMAS

Lymphomas occur in all age groups. The peak of incidence is in the military, the age group under discussion. Rarely do we find the lym-

phomas localized and amenable to surgery. For this reason they are more the problem of the radiologist or chemotherapeutist interested in nitrogen mustard.

SARCOMAS OF THE BONE AND SOFT TISSUE

Sarcomas of the bone and soft tissue include osteosarcoma and sarcoma of the nerve sheath. Radical amputation is the treatment of choice when it is feasible. The cure rate is somewhere between 10 and 20 per cent, which is far higher than radical resection for malignant tumors of the stomach.

The other remaining form of malignancy is melanoma. Here, excision with a good margin and accurate pathologic diagnosis is important. It is also important to point out that melanomas prior to the age of 14 behave as a rule as benign growths. It is only after adolescence that they show their true colors. Radical resection of the local growth and block dissection of the regional lymph nodes is the treatment of choice. If the lymph nodes are involved, there is little rationale to amputation. The cure rate is from 5 to 10 per cent when the regional nodes are not demonstrably involved.

Time prohibits delving thoroughly into each type and classification of the various forms of malignant neoplasms of this group. Although cancer has been considered rather more uncommon in youth than it is in the later decades of life, in bone sarcoma it is certainly more prevalent in youth than in adults. In my study it was found to be the rule rather than the exception that the individual with a bone sarcoma, enchondroma, etc., has usually been treated for months for neuritis, growing pains, sprains, rheumatism, and the like, before X-ray examinations and proper delineation have been made. In the routine examinations for entry into the service every year there are hundreds of young men rejected because of cancer or malignant disease in some form. Many of these bone tumors have been discovered at this time. The main object is for us to be constantly on the

alert for signs of bone sarcoma, which can be found and diagnosed accurately long before any external swelling is present. We know that transient bone pains increasing at night, in the absence of signs of acute infection in an apparently healthy young person, lead us at least to request a thorough roentgenologic examination. We know, too, that location of tumor is of extreme importance, that giant-cell tumors are at the epiphyseal end of the bone; and that osteogenic sarcoma has its entree usually in the metaphyseal region. We know also the areas of bone cysts, endotheliomas, and other similar types of tumors.

Many tests are extremely essential, particularly in bone tumors. We all of course like to take the blood phosphatase test; however, there is no laboratory procedure which can equal the surgical biopsy, either by tumor excision and biopsy or section biopsy. As a rule, our observation has shown that malignant tumors in youth and young adults apparently progress much more rapidly than in the older age groups and that metastasis is generally more widespread and fast. Consequently the mortality rate is high and the duration of the disease not so prolonged as in the older age groups.

Giant-cell tumor of the bone is common enough to call for special study and for all of us to put forth an effort to recognize and properly classify it according to type. Its occurrence in young people and the extreme danger to life and limb which it entails tend to emphasize the clinical interest and marked significance of this condition. We know that all giant-cell tumors of bone involve the epiphyseal end. They can be defined as a swelling, characterized by the presence of numbers of multinucleated giant cells, or osteoclasts, irregular masses of protoplasm, with large numbers of nuclei grouped mostly toward the center of the cell and rarely, if ever, showing mitosis. We find these giant cells imbedded in the stroma of connective tissue. Hemorrhages, cystic degeneration, and bone formation are often present. In the most typical form this tumor grows in the cancellous tissue in the ends of the

long bone and expands this bone, eventually breaking through the expanding bone shell. There is yet some controversy as to the malignancy of this tumor. In the diagnosis of all malignant bone lesions, closer coöperation between the clinician and the pathologist is essential. Sufficient material for diagnostic microscopic investigation must always be taken at the operating table by biopsy or complete excision.

CARCINOMA OF THE BREAST

Carcinoma of the female breast occurs throughout a wide age period, and the youngest patient which we found in our series was 20 years of age. By far the greater number were past 35 years, and the largest number, of course, were found to be 45 to 55 years of age. Of all the breast carcinomas, only 5.2 per cent were found in patients before the age of 35 years. I would say, however, that the service hospital, where dependents of service personnel are cared for, is hardly an appropriate place from which one can obtain an adequate series in the female for proper study. One is not surprised to find correlation between age and breast malignancy, since the fate of the parenchymal tissues at the menopause presents an imbalance which may be described as having very close relationship to the disease. Cell activity which has been evidenced throughout the reproductive period undergoes a material change and growth is quite erratic; at one time there is proliferation, at another arrested activity, and so there is that potentiality of abnormal nuclear activity which so easily initiates disease. There are many statistics that are extremely interesting and worthwhile, but it is hardly appropriate for me to pursue the subject from personal experience because of dearth of material.

GYNECOLOGIC CARCINOMA

Carcinoma of the cervix is a very common malignant lesion in the female, 30 per cent of all carcinomata in the female being uterine and 92 per cent of these in the cervix. Consequently, it

is essential to recognize early carcinoma, if it be in the cervix, for early diagnosis and eradication. In the literature one finds several tests which will aid in the early diagnosis of carcinoma of the cervix. However, there seems to be only one sure method of diagnosis, and that is by section biopsy and microscopic examination. The Schiller test has its worth, but it is certainly not equal in value to the biopsy and is not recommended. We have found that many carcinomas of the cervix begin at a comparatively early age, even before the age of 35, following lacerations from childbirth or chronic inflammatory lesions.

Granulosa-cell tumor of the ovary usually occurs during the menopausal and post-menopausal period. However, similar changes may occur in the other extreme of life, since precocious sexual development in children is a common sequel of the endocrinologic function assumed by the cells, marking the morphologic histology of the tumor. Clinically, however, granulosa-cell tumors are relatively benign, and only rarely do they break through the capsule, recur, or metastasize. Roentgen therapy may cause regression; however, the tumor may recur and cause death. Recently, of 150 patients with granulosa-cell tumors, in data collected from the literature in which the age of the patient was mentioned, it was found that 8 occurred in children under the age of 10 years. Seven were observed in patients aged 10 to 19 years, and 65 or 43 per cent arose between 20 and 50 years of age. Forty-seven per cent of the growths developed in women aged 50 years or more, or beyond the menopausal period. In children, this granulosa-cell tumor stimulates the reproductive organs, which may result often, in precocious sexual development. Embryonic carcinoma of the ovary in young adults and children is very rare.

In closing, I want to express my appreciation to the officers and members of the Medical Society of the District of Columbia, and of the American Cancer Society, District of Columbia Division, for being given the opportunity to

SURGERY OF THE COLON: PREOPERATIVE AND POSTOPERATIVE CARE

EDWARD C. WILSON, JR., M.D.

Washington

CHARLES S. WHITE, JR., M.D.

Washington

THE decrease in mortality and morbidity associated with surgery of the colon in the past 10 years may be attributed, for the most part, to improvements in preoperative and postoperative care.

The following routines have been established in our work largely through trial and error during the last 5 years. No claim of originality of these methods is made; they represent a combination of suggestions from fellow surgeons, personal communications, an extensive review of the literature, and lastly, our own experience.

The preoperative treatment should cover a period of 5 days, during which time an attempt is made to empty the intestinal tract and to lower the bacterial count with the aid of antibiotics.

On the first day of the preoperative period the patient is given three 0.5 Gm. tablets of sulfa-thalidine 5 times a day. These are spaced at regular intervals during the patient's waking hours, and are discontinued on the evening prior to surgery.

The patient is admitted to the hospital on the evening of the third day of this period. Essential laboratory work consists of a hemogram and a urinalysis. Supplementary laboratory work is ordered as indicated. If the hemoglobin is 60 per cent of normal or lower, the patient is given 500 c.c. of blood before the operation. Another 500 c.c. is made available for use either during the operation or during the postoperative period. If possible, transfusion is avoided until the patient has fully recovered from the anesthesia.

On admission a diet of clear liquids is ordered and this is maintained until the evening before surgery. Parenteral vitamin B complex with vitamin C is given daily until the patient is able to take an adequate diet postoperatively. Streptomycin, 0.5 Gm., is given orally every 6 hours for 8 doses during the 48-hour period just prior to surgery.

On the fourth and fifth day respectively of this period the patient is given 6 to 8 ounces of citrate of magnesia. This preparation is generally the least objectionable of the agents. If adequate catharsis is not obtained, an additional 6 ounces is given on the afternoon of the fifth day.

A soapsuds enema is given on the evening of the third and fourth day. Plain enemas until clear are given on the fifth day, and finally plain enemas until clear are given early on the morning of operation. Before going to the operating room the patient is given 300,000 units of penicillin together with 0.3 Gm. of streptomycin intramuscularly. A Levine tube is introduced into the stomach by the nasal route about 1 hour before surgery and is allowed to remain open during the operation.

It is our opinion that the anesthesiologist should visit the patient the day before the operation, and the type of anesthesia should be determined after a conference with the surgeon. Unless otherwise indicated, spinal anesthesia is preferred supplemented with pentothal sodium, inasmuch as this combination has seemed to us to be best for patient and surgeon alike. The administration of intravenous fluids, including

blood or blood derivatives, during the operation is left to the judgment of the anesthesiologist.

The use of a rectal tube contributes to the smoothness of the postoperative course. If the lesion lies distal to the splenic flexure, a large flexible colon tube is inserted into the anus and passed through the anastomosis with guidance of the operator's hand. The external portion of the tube is sewn to the perianal skin, thus preventing expulsion of the tube. The indwelling tube provides an adequate outlet for gaseous and liquid contents of the colon lying proximal to the anastomosis.

The postoperative phase begins the moment the operation is completed. It is our contention that the first few hours of this period are critical ones and that the patient is best cared for in a well equipped recovery room with adequately trained personnel. The patient returns to his room only when fully reacted from the effects of anesthesia.

The Levine tube is now connected to a suction apparatus, and continuous suction is maintained for the first 48 hours. Water by mouth is given freely during the first 24 hours; this is supplemented by clear liquids during the next 48 hours. The administration of liquids by mouth is comforting to the patient and also aids considerably in keeping the tube open.

On the day of operation and the following 2 days it is desirable to have the patient receive 3,000 c.c. of liquids parenterally, preferably intravenously, and not more than 1,000 c.c. at a time. An amino acid preparation such as protein hydrolysate should comprise one third of the total. The remaining two thirds should be divided equally between 5 per cent glucose in water and 5 per cent glucose in normal saline. This amount is somewhat arbitrary and frequently is increased or decreased to suit the patient's needs. Our rationale for fluid administration is based more on clinical judgment than on laboratory findings.

Streptomycin, 0.3 Gm. every 4 hours intramuscularly, is continued for 72 hours routinely.

If the temperature is significantly elevated at this time, this therapy is continued until the temperature returns to normal.

The patient is further protected by the administration of penicillin in 300,000-unit doses every 12 hours for 3 days. If indicated, the drug is continued in daily doses of 300,000 units.

On the morning of the third postoperative day the nasal tube is clamped. If fluids by mouth are well tolerated during the day, the tube is withdrawn. However, we do not hesitate to leave the nasal tube in place 1 or 2 days longer, if indicated.

Early mobilization, in our opinion, plays a large part in lowering the morbidity and mortality figures in surgery of this type. As soon as the patient has fully reacted he is encouraged to move his arms and legs frequently and to indulge in deep breathing exercises periodically. The nurses are further instructed to turn the patient often from side to side.

The patient is not forced out of bed the first day, but it is made clear to him that early ambulation will shorten his convalescence. As a result the majority of patients are out of bed on the second day and walking on the third day. On the fourth or fifth day a bowel movement occurs, usually around the tube and this is our criterion for removing the tube.

SUMMARY

A routine for the preoperative and postoperative care of patients undergoing surgery of the colon has been presented. It is believed that morbidity and mortality have been reduced significantly by following this régime. We wish to emphasize that all the phases discussed are important in themselves and in relation to one another. Diet, purgation, parenteral fluids, and antibiotics are necessary adjuncts. No phase of the treatment can be neglected or omitted without a noticeable effect on the patient. However, the routine given is flexible and will be modified in the future as deemed necessary by the introduction of newer antibiotics and other agents.

Presidents' Page

GOING TO TOWN

There's a rumble in the innards as the griping gets to going
And a sickish cramping feeling in the bottom of your gizzard
While the furniture seems dancing in the corners and inside you
All the pieces seem to separate; you feel all cold and numb.

There's a respite after minutes and your breath begins to come back,
While you wipe your brow and wonder what in hell is wrong within you,
When another pain lets loose and then you get the same old feeling
And you gasp and grunt and sweat and squirm and know your time has come.

Now it's time to do some packing since the thing has really started
So you throw your clothes around a bit, sit down to think it over,
And you telephone the doctor to come up and make it snappy
And you mop the bloody waters so the family won't suspect.

It's a lovely drive to Chester when you're stepping on the throttle
With a breeze about your temples and the throbbing of the engine,
But it's different with a grinding and a griping and a backache
And a hurricane inside you blowing out all ways at once.

Since you've had your shot of morphine and the pains subside a little
And the doctor knows his business and tries to raise your spirits
You attempt to stop the chatter of your front teeth and the tremor
Of your sweaty hands that clench again when Nature takes ahold.

When you're finally on the table and the nurse starts in to shave you
And the interne takes a history between the whiffs of ether
Then a big black cloud begins to rise from somewhere out of nowhere
And a grunt or groan escapes you and you know you've done the job.

There's a special place in heaven that awaits the laboring woman
And it's any place that's big enough to hold a lot of babies,
But the men concerned are far away and looking sort of helpless;
It's a woman's world that's peopled by the gentler sex alone.

Walter Freeman

Editorials

A SALUTE TO DR. RUHLAND!

For the past fourteen years the name of George C. Ruhland has been synonymous with the words Public Health in the District of Columbia. When he came to the Nation's Capital to take the position of Health Officer, Dr. Ruhland found a health department that had lagged far behind those in other cities the size of Washington. Equipped with an extensive knowledge of the problems of public health and their possible solutions, Dr. Ruhland went to work in a forthright and vigorous fashion to bring about the much-needed changes. The list of new bureaus added to the Health Department under his régime is eloquent testimony to the expansion which he engineered. These bureaus were: Maternal and Child Welfare, Public Relations, Cancer Control and Mental Hygiene. During this period three health centers were also set up and the work of the existing bureaus was improved, especially by elevating the level of the professional personnel. More intangible results of Dr. Ruhland's years

in Washington have been a greater awareness of the importance of public health and preventive medicine on the part of the people of the District, and a growing attitude of mutual respect on the part of the officials of the Health Department and the practicing physicians.

All of this has happened in a period of rapid medical progress, of radical social change, and during the upheaval and turbulence characteristic of war.

We salute the retiring Health Officer as a doctor and administrator of demonstrated ability, as a public servant of proved integrity, as a gentleman whose patience and good sense have been taxed through a thousand trials. But the words which we can use are but futile things beside the works which he has wrought. *Si monumentum requiris, circumspice* (if you require a monument, look around you).

HARRY F. DOWLING, M.D.

Chairman, Committee on Public Health

METABOLIC DISEASES AND THE SPECIALISTS

The ubiquitous nature of metabolic diseases and the great diversity of their initial manifestations are becoming increasingly apparent. Almost every medical and surgical specialist must now be familiar with this subject in general, but especially with those symptoms for which the patient may seek his aid. In this day of heightened specialization and increased public information, the patient or his family makes the initial presumptive diagnosis and the specialist is consulted from the beginning.

For the urologist to be of maximum service to his patient he must do more than simply see that the impacted ureteral stone is properly removed. He must identify the chemical nature of the stone and according to these findings investigate the possibility of a specific causative metabolic defect. A calcium phosphate stone is frequently the first evidence of a parathyroid adenoma, of the renal tubules' inability to reabsorb calcium ("idiopathic hypercalcuria") or phosphate ("Fanconi syndrome"), that the patient is becoming

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia

intoxicated from the excessive vitamin D she is taking for arthritis, or that the treatment she is receiving for her postmenopausal osteoporosis is ill-advised. A cystine stone may indicate generalized cystinosis; a uric acid stone that the patient has gout; sulfonamide calculus that there has been self medication and so on. The urologist may be of great service to the neurosurgeon and orthopedist (as well as to the patient) when he is called in consultation to see a paraplegic or a patient with vertebral fracture who has been bedridden several months and has suddenly developed renal colic. This syndrome has been frequently seen in military hospitals during and since the recent war. The main etiologic factor in such cases is severe demineralization of the skeleton secondary to disuse osteoporosis. A large intake of milk often is an important complicating factor which the attending physician must check.

The orthopedic ward harbors all sorts of metabolic diseases, both common and rare. Senile osteoporosis and osteomalacias of numerous etiologies are frequently first recognized only after the patient develops a spontaneous fracture or pseudofracture. A case in point is that of a recently recognized Fanconi syndrome in a 44-year-old soldier who for 6 years has been in and out of hospitals because of numerous pathologic fractures. Similarly Milkman's syndrome may be picked up by the radiologist, and only then is it realized that for years the patient has been having minor (subclinical) fractures due to osteomalacia.

It is obvious, of course, that the radiologist is indispensable in the study and differential diagnosis of all metabolic bone diseases, urinary lithiasis, nephrocalcinosis, and metastatic calcification. He is of greatest importance, however, through his ability to first detect the pathologic changes at a time when they may not yet have been clinically recognized.

Another fertile source of metabolic disease problems is the eye clinic. Here the gouty patient may be seen for acute iritis or chronic uveitis. The diabetic is a frequent visitor because of changes of refraction, cataracts, ret-

inopathy, iritis, glaucoma, or thrombosis of the central vein. External eye signs and intrinsic disease are well known in hyperthyroidism. Less well appreciated are the changes produced by hyper- and hypoparathyroidism. In the former, as well as in any other cause of prolonged hypercalcemia, slit lamp examination may reveal crystalline deposits in the conjunctiva of the palpebral fissure or cornea. Correction of the underlying basic pathologic physiology may result in resorption of these lesions. Conversely, hypoparathyroidism, as well as any other cause of prolonged hypocalcemia, may result in cataracts.

Similar examples could be cited from almost every medical specialty. What experienced surgeon has not at some time in his career had the misfortune of exploring a patient for appendicitis only to find out that the abdominal pain was due to an extra-abdominal cause? Appropriate studies may reveal acidosis due to diabetes or renal disease, or even the rarer condition of porphyria in which severe abdominal pain is most characteristic. The pediatrician with his cases of sprue, renal rickets, and precocious puberty; the obstetrician with his toxemia and endocrine problems; the dermatologist because so many of these metabolic, avitaminotic, and endocrine patients show cutaneous changes; and, in fact, any physician engaged in the practice of clinical medicine must familiarize himself with the sundry manifestations of diseases of metabolism.

Most important for the specialist to remember, however, is the fact that the particular sign or symptom which directed the patient to his office is often only one of many which a complete history, physical examination, and laboratory study may uncover. Metabolic diseases affect the entire body economy and, therefore, produce physiologic and pathologic changes in many organs, only one of which may be obvious. To treat that one and neglect the others is the dangerous pitfall the specialist must avoid.

LORENZ E. ZIMMERMAN, M.D.

Major, Medical Corps, U.S. Army

OUR LIVING PAST PRESIDENTS

In the August issue of the *MEDICAL ANNALS* was concluded the series of "Washington Physicians of Yesterday" begun in May 1945 by Theodore Wiprud, Managing Editor of the *ANNALS*, and taken over by Dr. John B. Nichols in 1946. For these brief biographies of illustrious Washington physicians of the past the Editorial Board has received appreciative comment from many readers.

The advisability of publishing biographical sketches of the living Past Presidents of the Medical Society of the District of Columbia was discussed with one of them, who was agreeable, he said, provided they were not written as "obituaries."

Some of our Past Presidents have led, and are still leading, very active lives, both professionally and civically. Also included among those who have held the highest office in our Society are younger physicians whose professional careers have barely reached the half-way mark. Therefore, the series could not very well be written as obituaries, nor shall we attempt to include all the factual data which good obituaries should contain. Rather, we present our Past Presidents as we see them today, with more emphasis on present activities and interests than on past achievements. We are going to bring before you vital personalities—in other words, we want you to enjoy the company of Our Living Past Presidents.

THE 1949 V. D. CONTROL CAMPAIGN

The Bureau of Venereal Diseases of the D. C. Health Department is sponsoring the biggest all-out drive against venereal diseases, starting October 1, ever conducted in the District.

Coöperating in the drive are the leading business, labor, professional, civic, fraternal, veterans, religious and other groups in the community. These organizations have formed a citizens' committee, elected officers, appointed subcommittees and made plans to carry out the objectives of the campaign.

Objectives of the campaign are general education, blood tests and examinations for those having symptoms, and where infections are found, treatment until cured.

In addition to the usual mass media, press, radio and screen, new adaptations will be employed in the campaign. For the first time in history the VD story is being told to music. Transcriptions from Columbia University present some of America's leading folk singers, Merle Travis, Tom Glaser, Red Foley, Norman Brokenshire and the Dixieaires. Spot announcements from the same source feature Admiral Denfield,

Jim Farley, Phil Silvers, the Reverend Adam Clayton Powell and others of national prominence.

In addition, Gunnar Back, former CBS News Commentator at WTOP, who has distinguished himself for radio work in venereal disease, now chairman of the community-wide committee, has prepared special spot announcements based on testimony taken from patients at Gallinger Hospital.

Films also will be used. "Feeling All Right," which has won a citation as the best documentary film in this field, has been shown at the Howard Theater, over WTTG television station, and at neighborhood meetings. "The Big Fight," featuring Joe Louis, has been shown over WTTG and at several local meetings.

There are nearly 1,000,000 pieces of literature, folders, pamphlets, leaflets, bulletins and posters for distribution. The aim is to reach every home, every family, and every individual by these means. No one in D. C. will be able to escape VD information and education during this campaign.

The medical profession is well represented on the committee. Dr. Monroe Romansky of the Medical Society of the District of Columbia and Dr. R. Frank Jones of the Medico-Chirurgical Society are the vice chairmen. Dr. C. Wendell Freeman of the latter Society, Dr. Roy L. Sexton of the Board of Trade, and Dr. Benjamin Striner, representing the Federation of Citizens' Associations, are members of the committee.

Increased emphasis in finding new cases of venereal disease in your patients as they appear for examination and placing them under treat-

ment will greatly assist the drive. Your support in the dissemination of information concerning the venereal diseases in both your professional and social contacts will assist in making this effort a success.

The incidence of primary and secondary syphilis from reported cases is decreasing. Increased effort now will pay big dividends in "Putting V.D. Down."

S. ROSS TAGGART, M.D.

*Director, Bureau of Venereal Diseases,
D. C. Health Department*

THE SUMMER CAMP FOR CARDIAC CHILDREN

A new community service for children of the District of Columbia and its environs was made available in August by the operation of two camps for children with heart disease under the auspices of the Washington Heart Association. Supplementary financial aid was given by the *Washington Evening Star* Summer Camp Fund. The camps were Camp Sunshine and Camp Wonderland, which are situated in the Prince William National Forest at Triangle, Va. This 17,000-acre reservation in which several summer camps are located is immediately north of the Quantico Marine Base. The campers in the main came from the cardiac clinics of the District of Columbia hospitals. Several of them came from nearby Virginia and Maryland.

The age range of the children was from 8 to 14 years. There were 47 white children at Camp Sunshine and 45 colored children at Camp Wonderland. The children were selected after careful examination by physicians particularly interested and qualified in the cardiac problems of children.

The camps were staffed and administered by the personnel of the Summer Outing Association. A graduate nurse and a senior medical student were resident in each camp.

The activity program in the camps necessarily

differed from that in the usual summer camp, emphasis being placed upon handicrafts, nature study, and woodcraft. Bathing for all and swimming for some were included once or twice daily in the program. Although the campers included several with severe rheumatic heart disease and 3 with congenital heart disease marked by persistent cyanosis, the camping period was not marred by illness or accident.

By all possible measure both camps were a great success. Children with heart disease who could not otherwise have attended camp derived the benefits of 2 weeks away from home in an atmosphere devised for them from the standpoint of their special physical and psychologic demands. There was no expense to the families for the child's maintenance or transportation. With one or two exceptions among the oldest children all campers were reluctant to return home and enthusiastically desired to put their names on the list for next year's camp.

This camp program is part of the expanded activities of the Washington Heart Association made possible by the funds obtained in the drive of February 1949. It is planned that these camps will be operated annually by the Heart Association.

BERNARD J. WALSH, M.D.

THE CARE OF HAND INJURIES*

IV. LACERATED WOUNDS

Lacerations may damage skin, fat, fascia, muscles, tendons, tendon sheaths, blood vessels, nerves and more rarely, joint or bone. The treatment of such injuries has four objectives: (1) protection from infection; (2) restoration of structures; (3) avoidance of deformity; (4) early restoration of function.

These objectives are furthered by proper first-aid care, as outlined in I (General Principles of Protection) and by definitive treatment.

A. Definitive treatment. To be undertaken only under the proper conditions and according to the principles outlined in II (Requirements of Early Definitive Treatment). Careful history of the injury should be followed by examination of the hand to determine:

1. Location and extent of the wound
2. Source of major bleeding
3. Presence of foreign material
4. Function of tendons, to be tested *against resistance*
5. Function of intrinsic muscles
6. Condition of nerves as regards both sensory and motor functions
7. Integrity of bone and joint.

Following anesthetization of the patient and application of hemostatic blood pressure cuff (not to be inflated above 300 mm.), definitive treatment of the wound consists of:

1. Thorough cleansing of wound region and then of entire hand and forearm with soap and water or bland detergent.
 2. Removal of foreign material from the wound.
 3. Careful, gentle, thorough, but conservative excision of devitalized tissues, sparing all structures that may survive.
 4. Repeated cleansing of wound by irrigation with warm normal saline solution.
 5. Securing and ligation of divided blood vessels.
- These general measures are followed in appropriate

cases by repair of damaged structures. Proper wounds for this repair are:

1. Those in which infection has not become established.
2. Those not grossly contaminated by highly infective material.
3. Relatively clean wounds not more than three or four hours old.

In general, wounds not fulfilling these criteria are better left unrepaired to await secondary closure and later reconstructive surgery. They should, nevertheless, be as carefully cleansed of foreign matter and dead tissue as are those prepared for primary closure. In such cases severed nerve ends may be identified with nonabsorbable sutures or lightly united.

B. Repair of damaged structures

1. Nerves

- a. All severed nerves should be repaired, including the digital nerves.
- b. Fine arterial silk on fine needles should be used, accurately approximating the nerve ends by small interrupted sutures placed around the periphery. These sutures should include only the perineurium, not the nerve bundles. It is important to avoid axial rotation, particularly in nerves having both motor and sensory function.
- c. Nerves are to be distinguished from tendons, especially at the wrist, by their anatomical position, softer texture, pinker color, small surface capillaries, and distinct nerve bundles seen on cut ends. Pulling on a nerve will not flex a finger.
- d. Nerves should be handled gently, never crushed, rubbed, or allowed to become dry.

2. Tendons

- a. All severed tendons should be repaired, including the tendons of intrinsic muscles.

An important exception to this rule concerns flexor tendons severed within the flexor sheath or in the digital flexor canal. Primary suturing of the flexor profundus in this location rarely suc-

* This is the fourth section of a presentation of the Principles of Early Management of Hand Injuries prepared for the Committee on Fractures and Other Traumas of the American College of Surgeons by the American Society for Surgery of the Hand. The other sections have appeared in the following issues of the MEDICAL ANNALS: I. General Principles of Protection, July 1948; II. Requirements of Early Definitive Treatment, November 1948; III. Surface Injuries, June 1949.

ceeds in restoring useful function even if the flexor sublimis is removed. Suturing both flexor sublimis and profundus in this area almost invariably results in failure. Should even minor infection occur, failure is assured. With rare exceptions, it is sound practice to repair the skin and digital nerves only, leaving the flexor tendons for secondary reconstruction when severed in this region.

- b. Nonabsorbable sutures of silk or wire are used accurately to approximate the severed tendon ends after they have been cleanly squared off with a sharp knife.
 - c. Additional incisions to secure retracted tendon ends should follow flexion creases. They should be curved or transverse, never longitudinal, and never in the palmar or dorsal midline of a finger.
 - d. Tendons should be handled gently; never crushed, rubbed, or allowed to become dry.
3. Muscle
- a. Severed muscles should be lightly approximated with interrupted mattress sutures, avoiding tension and constriction.
 - b. Muscle thus repaired should be alive, contractile and vascular, all devitalized shreds being trimmed away.

Following these procedures, the hemostatic blood pressure cuff is released to permit identification, control and ligation of bleeding vessels. The field should be dry before closure of the wound.

4. Fascia
Severed fascial and ligamentous tissue should be repaired with interrupted mattress sutures, avoiding tension.
5. Subcutaneous tissue
Subcutaneous fatty tissue may be lightly approximated with interrupted fine sutures.
6. Skin
The skin should be closed with fine, non-absorbable sutures.
7. Dressing
Firm pressure dressing is applied, the fingers being separated, with gauze be-

tween them. The hand is immobilized by splinting in the position of function, except when suture of severed tendons requires splinting in a position to insure the least strain on their suture lines. If nerves have been severed, the position of function is particularly important to prevent deformity due to contracture of active muscles when their opponents are denervated and paralyzed.

C. Aftercare

1. Antibiotics and tetanus antitoxin (or toxoid) are administered systemically as prophylaxis against infection.
2. The extremity is kept elevated for the first 3 or 4 days.
3. Dressings are not removed for several days, usually 1 week, unless infection develops.
4. The healing of severed tendons and nerves requires 3 weeks of uninterrupted immobilization.
5. When nerves are severed, corrective splinting is necessary until reinnervation of paralyzed muscles has occurred.
6. Restoration of function is best secured, after healing, by directed voluntary exercise and appropriate occupational therapy.

BOOKS RECEIVED FOR REVIEW

Acknowledgment is made of the following books which have been received for review:

Fundamentals of Otolaryngology—A Textbook of Ear, Nose and Throat Diseases. LAWRENCE R. BOIES, M.D., Clinical Professor of Otolaryngology, Director of Division of Otolaryngology, University of Minnesota Medical School, AND ASSOCIATES. Price, \$6.50. Pp. 443, with 184 figures. Philadelphia: Saunders, 1949.

Clinical Biochemistry, 4th ed. ABRAHAM CANTAROW, M.D., Professor of Biochemistry, Jefferson Medical College; formerly Associate Professor of Medicine, Jefferson Medical College, and Assistant Physician, The Jefferson Hospital, Philadelphia, AND MAX TRUMPER, PH.D., Commander, H(S), U.S.N.R., Lecturer in Clinical Biochemistry and Basic Science Coördinator, Naval Medical School, National Naval Medical Center, Bethesda, Maryland. Price, \$8.00. Pp. 642, with 38 figures. Philadelphia: Saunders, 1949.

THE MEDICAL CONTROVERSY: ACT I*

THEODORE WIPRUD

Secretary, The Medical Society of the District of Columbia

I am sure that most of you have heard many arguments for and against compulsory health insurance. You have perhaps noted the strong tendency on both sides to inject extraneous issues into the controversy. There are, of course, many important aspects of this problem, but the fact remains that the primary one, in so far as the public is concerned, is whether the average man can pay for adequate medical care.

No one denies—certainly not physicians—that over-all costs of illness may not only become burdensome but catastrophic. They also agree that health insurance is the most satisfactory solution to this problem. Where the majority of the physicians differ with the present Administration in Washington is the kind of insurance program which would prove most satisfactory to the public and the medical profession.

You are undoubtedly familiar with the fact that the organized medical profession, that is, the American Medical Association and its constituent state units, favors voluntary health insurance, or so-called medical prepayment plans, as the least costly and the most effective method of spreading medical costs. The Administration, on the other hand, believes that the solution lies in a Federal tax-supported system of medical care directed from Washington. I will not dwell at this point upon the reasons advanced by each side for its respective position but will endeavor to picture for you how the situation looks to a citizen of the Nation's Capital who, although engaged in medical organization work, has endeavored to see the problem objectively.

For more than a decade I have watched developments in the controversy over compulsory health insurance from what might be called a ringside seat. As I reflected on what I might say to you, it occurred to me that what I had observed was analogous to a play, and a very fascinating one. For not only have I been privileged to view the many scenes in this drama, but I have also had a close view of the players. Whether the play is a comedy or a tragedy, I am not sure, because the performance is still in progress. The curtain fell on the prologue some years ago, and, very recently, on the first act.

* Excerpts from an address delivered before the Pee Dee Medical Association in Mullins, South Carolina, September 15, 1949.

The scene of the prologue was laid in Washington. There in the early 1930's the Committee on Costs of Medical Care, of which Dr. Ray Lyman Wilbur was the head, had just completed its historic five-year study of medical care in this country at a cost of more than a million dollars. Serving on the Committee with Dr. Wilbur were a number of prominent physicians and laymen. Their investigation was extensive and widely publicized. But the Committee was badly split when it came to its recommendations. A majority of the Committee favored health insurance and, if necessary, its subsidy by the Federal Government. A minority, however, held out for modifications of the private practice system. When the curtain came down on the prologue it was apparent that the Committee's findings had touched off a controversy which was to last for many years, the outcome of which is still uncertain.

The opening scene of the first act took place in a Congressional hearing room in Washington. Those who favored compulsory health insurance had succeeded in having legislation introduced in the Congress some four or five years after the Committee on the Costs of Medical Care made its report. The legislation was then too radical for most legislators and only a handful showed much interest in it. Few physicians were sufficiently well informed to discuss the subject adequately with the small but vocal group who demanded the adoption of revolutionary changes in medical practice.

Since then many scenes have been enacted, most of them laid in hearing rooms on Capitol Hill. Many of them have been characterized by serious discussion. Some have had their light and even hilarious moments. Too frequently they have been dull, their only apparent purpose being to keep the health insurance issue before the public.

The final scenes of Act I were played late last spring, when hearings were held on several health insurance bills, and in midsummer when the President's Reorganization Plan No. 1 went down to defeat.

It was interesting during those hearings to watch the expressions on the faces of the listeners. They naturally reflected their feelings which, in many

instances, were strong. Among the "regulars" were representatives of the medical profession, sometimes of state medical organizations such as your own, of organizations devoted to convincing the people of the desirability of compulsory health insurance, of labor organizations, and of Government departments.

Succeeding scenes in this drama were very much the same; in fact, the testimony given this year was very much like that given last year and the year before. The repetition was often wearying to regular attendants. That is one reason why I do not attend as many hearings as I used to. I have heard both sides of the story so often that I know just about what the witness is going to say before he makes his opening statement. As most of you have not had this experience, here are some of the excerpts of statements made by leading proponents and opponents of compulsory health insurance who appeared before the Subcommittee recently.

Federal Security Administrator, Oscar R. Ewing, who spearheads the fight for a compulsory health insurance system, did not appear as a witness because of illness. Representing Mr. Ewing at the hearings this year was J. Donald Kingsley, then Acting Federal Security Administrator. Among other things, he said:

"The real issue as I see it is not between voluntary, private health insurance and a national system based on our social insurance experience, but rather between national health insurance and state medicine. I say this not because I am opposed to voluntary insurance, for I am not, but because I am firmly and honestly convinced that nothing short of the social insurance method can prevent the further—and eventually the complete—substitution of state for private medicine."

Probably one of the most colorful witnesses, and certainly one of the ablest, was Dr. Paul R. Hawley, formerly Chief Medical Officer of the Veterans Administration, now Chief Executive Officer of the Blue Cross-Blue Shield Commissions.

"What concerns me most about compulsory health insurance," Dr. Hawley said, "is its effect upon the quality of medical care. This effect has been demonstrated in every country in which it has been tried. During the last half of the 19th century, the world capital of medicine was in Germany. Doctors the world over went to Germany to complete their training. The program of compulsory health insurance was the greatest factor in the loss of this preëminent position. Today, the world capital of medicine is in the United States. It will be the greatest tragedy in the world if the quality of medical care in this country is offered as a sacrifice to political expediency.

"Medical care is not primarily a matter of buildings or of money. It is a product of the competency and the zeal of the professional personnel who alone can provide it.

"The experience of every compulsory health insurance program ever attempted has been that the demand for medical attention is greatly increased and that this increase is largely in the realm of inconsequential ailments which people ordinarily disregard—and the health of our people as a whole would be improved if these were disregarded oftener.

"If proponents of compulsory health insurance were sincere in an effort to improve the health of the Nation, they would advocate that facilities first be increased in order that the demand be met. They would insist upon being able to provide everything that they promise. The conclusion is inescapable, however, that to these people compulsory health insurance is not a means to an end, but the end in itself.

"Compulsory health insurance has been described as 'socialized medicine.' 'Socialized medicine' is a term which cannot be precisely defined. Perhaps this is why the proponents of compulsory health insurance have now adopted it to denounce other bills before this Congress which have been offered in an effort to solve our health problems through voluntary means—a device reminiscent of childhood when sometimes the only retort to an epithet, producible in the confusion of the moment, was, 'You're another.'"

One might go on ad infinitum with testimony, pro and con. The bitterness engendered on both sides, while not as obvious as in former days, is always evident. The finale of Act I of *The Medical Controversy* came with the defeat of the President's Reorganization Plan No. 1 which would have created a Department of Welfare with Mr. Ewing as the probable head. This proposal was rejected by the Senate by a substantial majority.

The setting of Act II, which is just getting under way, is the "grass roots." You who are here tonight, and thousands like you throughout the Nation, will play an important part in this act. The American Medical Association has undertaken a far-flung educational program in an effort to bring to you the economic facts pertaining to health as it sees them. The Administration, of course, is likewise engaged. When the votes are counted in November, 1950, the curtain will come down on Act II. Act III will take place in the halls of Congress where the representatives of the people will debate the issue and dispose of it one way or another.

At the present time the feeling in Congress seems to be that compulsory health insurance on a national scale is impractical and that the cost would be excessive. This view may or may not change following next year's election.

(Continued on page 558)

DISTRICT HEALTH OFFICER RUHLAND RETIRES

September 30, 1949 brought to a close a career of more than three decades of the public health administrative service of Dr. George C. Ruhland. During this time he has set "a unique record by building up three of the finest health departments in the country. Alert and active in both mind and body at 70, he could easily pass for 20 years younger."* His lean, erect figure still evinces physical fitness, reserve energy, and radiant health. "With his carefully parted, graying hair and his neat, conservative manner of dress, he has an air of well-ordered efficiency. This is borne out, too, by his speech, which is quick and concise."*

George C. Ruhland was born May 30, 1879 of American parents who were visiting in Europe at the time. He was the youngest of eight children. His father, a clergyman in Buffalo, New York, died when George was very young. With their mother, the family moved to Milwaukee shortly thereafter. He still considers this his home town.

Upon deciding to enter the medical profession, he attended Concordia College and received his medical degree from the old Wisconsin College of Physicians and Surgeons, which later became Marquette University Medical College.

In 1906, Dr. Ruhland went to work in the laboratory of the Milwaukee Health Department. He became laboratory director, and in 1914 he was appointed Commissioner of Health. With the exception of time out for service as a major during World War I, when he was stationed at Fort Sill, Oklahoma, he held this position until August 1, 1924.

From 1920 to 1924, while still Commissioner of Health, Dr. Ruhland served as head of the Department of Hygiene and Sanitation, Marquette University Medical School, his alma mater.

During Dr. Ruhland's term of office as health commissioner the Milwaukee Health Department increased its number of employees from 60 to 245. The budget was doubled and many new services were installed. The number of child welfare clinics increased from 1 to 18, 2 health department branch stations were opened, and the entire school medical inspection service was taken over by the health department.

To serve as director of the Syracuse, New York, Health Demonstration, sponsored by Milbank Me-

morial Fund, which was then in progress, Dr. Ruhland moved to Syracuse in June 1924. On August 1, 1928, he was appointed first full-time Health Commissioner of the city and served until March 1, 1935, when he accepted the position of Health Officer, District of Columbia.

"Under Dr. Ruhland's leadership the Syracuse Health Department was reorganized, expanded, and strengthened. Among his more notable contributions to the city's welfare and the cause of public health in general were: organization of the first generalized



GEORGE C. RUHLAND, M.D.

municipal public health nursing service in the State of New York; marked improvements in maternal and child health protection, and in tuberculosis and control of acute communicable diseases, including diphtheria prevention; the coördination of official and private health, medical, and social agencies designed to promote health betterment, and the saving of human lives; the application of scientific methods of the measuring of public health accomplishments and needs; and the practical demonstration of the value of trained professional personnel.

"Due largely to the pioneering and productive labors of Dr. Ruhland, Syracuse was awarded the

* Health Officers' News Digest, 1949, 14, 17.

first prize in the U.S. Chamber of Commerce Inter-City Health Contest, and also attained the highest American Public Health Association appraisal ratings in tuberculosis control. The recognition thereby gained by Syracuse because of its public health service became international.”*

Since coming to the District of Columbia in March 1935, Dr. Ruhland has established for himself a long list of creditable accomplishments. Under his administration the District of Columbia has lowered its general death rate by over 34 per cent. From 1935 to 1949 inclusive, Washington's infant mortality has dropped 59.8 per cent. The tuberculosis death rate has dropped about 47.7 per cent, the pneumonia death rate by 75.4 per cent, and the diphtheria mortality by 94.0 per cent. Death rates are now the lowest in the city's 149-year history. The number of employees has increased from 263 to approximately 2,700 and the budget has grown from \$520,000 to over \$7,000,000 including the municipal hospitals' budgets. The public health nursing service was modernized under the generalized plan and increased its personnel. Maternal and child health services have expanded. The School Medical Inspection service was extended to include parochial as well as public schools. He pioneered in restaurant sanitation and inaugurated a system of evaluating the cleanliness of eating utensils by using the bacteria count as an index. Public health engineering services were coordinated and expanded. The municipal hospital system was built up from one of ordinary facilities and staff to institutions with modern buildings, new facilities and equipment, and a staff of highly qualified professional personnel. A modern communicable disease code was developed in 1940 and was revised to give more definite enforcement authority to the Health Department in 1946, and again revised in 1949 in line with newer developments. A mental hygiene service, a cancer control service, and an expanded alcoholic rehabilitation service have been added to the Health Department's facilities in the past four years.

Washington's first health center was completed and put into operation under Dr. Ruhland's direction in 1940. Plans were formulated for five additional health centers, but appropriations have not

been approved by Congress to continue the health center construction plan.

Numerous articles written by Dr. Ruhland have appeared in leading professional and scientific periodicals.

Dr. Ruhland has been honored locally on many occasions and in recognition of his outstanding public health accomplishments has been awarded a certificate for meritorious services by the citizens of Washington. He has served on many committees of the American Public Health Association and other national organizations and is author of numerous works on public health. Recently, Dr. Ruhland was elected President of the International Medical Club of Washington.

J. EDGAR CASWELL, *Director,*
Bureau of Public Health Education,
D. C. Health Department

MEETINGS

Wednesday, November 9

The Georgetown University Medical Center will present the following program:

SYMPOSIUM ON POLYPOSIS OF THE GASTROINTESTINAL TRACT

- "Clinical Manifestations with Presentation of a Distinctive Syndrome of Generalized Gastrointestinal Polyposis and Melanin Pigmentation of the Face, Oral Mucosa and Digits," HAROLD JEGHERS, M.D., Professor of Medicine
- "Roentgenologic Demonstration of Gastrointestinal Polyps," WILLY BAENSCH, M.D., Professor of Radiology
- "Pathologic Manifestations of Gastrointestinal Polyps," CHARLES F. GESCHICKTER, M.D., Professor of Pathology
- "Surgical Care of Gastrointestinal Polyps," ROBERT J. COFFEY, M.D., Professor of Surgery

All participants in the program are members of the faculty of Georgetown University School of Medicine and heads of their respective departments.

Wednesday, November 16

The Section on Gastroenterology will sponsor the following program:

- "Functional Digestive Diseases," SARA M. JORDAN, M.D., Director of Gastroenterological Department, The Lahey Clinic, Boston.

Wednesday, November 30

Faculty members of *George Washington University School of Medicine* will appear on the program. Speakers and subjects to be announced.

* Citation Award to Dr. George C. Ruhland, Syracuse Centennial Commission, August 16, 1948.

PROPOSED SURVEY OF MEDICAL SERVICE IN THE UNITED STATES

Provision of more adequate medical care for the American people has become a subject of vital interest and controversy. The Federal Administration is sponsoring a national compulsory health program which would provide free medical aid for the great bulk of the population. Other bills now before Congress omit the compulsory provision but would provide extensive Federal aid to states for health programs. Meanwhile, many private agencies which oppose "government medicine" are vigorously promoting an expansion of private medical services, especially the so-called "voluntary prepayment medical care plan." A middle ground between compulsory and voluntary systems of health insurance is also being sought. Most of the public discussion is being conducted on an emotional basis. Such citations of facts as are made are usually unreliable and misleading.

The significance of this subject may be indicated by a brief statement as to the scope and character of the Administration's program. The Compulsory Health bill of the Administration would provide free medical care for about 85 per cent of the population. The program calls for compulsory pay-roll deductions of 3 per cent on the first \$4,800 of a person's annual income—one half to be paid by the employer and one half by the employee. To this the Federal Government would add one half of one per cent through 1954 and up to one per cent through 1957. This would create an estimated fund of 6 billion dollars to pay for medical, dental, and hospital bills. No evidence has been submitted, however, which would indicate that such a sum would be adequate to provide the services promised.

Two years ago the Brookings Institution made a preliminary, analytical survey of some aspects of this problem, and published a small volume entitled "The Issues of Compulsory Health Insurance." Because of the lack of reliable comprehensive data as to the extent to which medical care is now available to the people of the United States, that study was necessarily limited in scope.

The situation in this field has been changing very rapidly in the last few years. This is particularly the case with the medical services rendered by a wide variety of agencies such as the Blue Cross and Blue Shield, and medical care programs of industries and labor organizations. For example, seven years ago

physicians sponsored voluntary medical care plans in 10 states for about 700,000 people. Today such plans cover 46 states. Blue Shield enrollment in 1948 increased more than 43 per cent, providing medical services to more than 10 million persons. Blue Cross now enrolls more than 32 million persons. A major feature of labor union programs now calls for benefits in the form of pensions and medical care plans. At the same time philanthropy in the field of public health is of vast but unknown scope.

If we are to have a sound national health program the first requirement is to ascertain the facts as to the state of medical service in the United States today.

SCOPE OF THE PROPOSED INQUIRY

For a comprehensive picture of the availability of medical care in the United States both private and public organizations should be covered. These would include medical services provided by industry, trade unions, medical societies, philanthropic and fraternal organizations, national health associations, group health and other voluntary prepayment medical care plans, state and Federal medical aid programs including veterans and the armed forces, and industrial and commercial insurance. The nature and scope of these various types of health services may be briefly indicated.

1. *Industrial medical care and health programs.* There has been a rapid development in this field in recent times. It is claimed that there are at present over 200,000 industrial health programs providing some measure of medical relief to approximately 32 million people. Within this category should also be included Workmen's Compensation medical benefits and Vocational Rehabilitation.

2. *Medical services—private practice and facilities.* The service in this field undoubtedly covers the larger percentage of the population. Of approximately 165,000 practicing physicians serving on the average of 25 patients a day, and with the added facilities of 6,335 registered hospitals with an average daily census of over a million, the percentage of the population receiving medical care would appear to be large. In addition the services of 270,000 nurses and 70,000 dentists contribute to these services.

Of the private voluntary medical care and hospital plans there is a wide difference in relationship to methods of sponsorship and financial arrangements. Consequently there would be a great difference in the coverage of these plans. Some of these plans are limited to membership, with eligibility confined to special groups, governed by age, physical condition, income and employment. Some plans are conducted for money profits; others are organized on a non-profit basis, applying any financial benefits to the provision of additional medical services.

The services of the private medical agencies have continued to grow in spite of the Government's assuming greater responsibility in this field. If the experiences of the past show the way to the future, medical needs, irrespective of Government control, will continue to be cared for by voluntary prepayment medical care plans, private practices, and agencies.

3. *The philanthropies, including national health organizations.* The extent of the medical care coverage provided by the philanthropic agencies is not known. Among these agencies there are about 20,000 in the United States concerned with the various phases of public health and the prevention and treatment of disease. Some of these agencies are nationally known, such as the National Tuberculosis Association, American Red Cross, etc., while many others are only of local interest.

Of the national organizations 14 or more are concerned with specific problems such as tuberculosis, cancer, infantile paralysis, venereal diseases, etc.; and safeguarding of special organs or functions as aid to the blind or hard of hearing; and of special groups to promote mental hygiene and maternal and child care programs. Yet while their services are limited to specific problems and groups of people, these organizations reach the medical needs of many.

The American Red Cross and the Community Chest have wide and varied health activities and medical care functions.

4. *Public assistance plans—Government supported.* Within the category of public assistance the Government provides hospital and medical care. These services are provided for by the armed forces, Veterans Administration, school and state colleges, Children's Bureau, medical care for low-income classes through Federal and state governments, public gen-

eral hospitals and public health nursing through the Public Health Service, and public medical assistance benefits through the Federal Security Agency. Over 75 civilian agencies of the Federal Government now provide some form of health activities, of which 40 have medical care services included within their programs. General medical services and special hospitals for tuberculosis, mental diseases, cancer, and crippled children are made available. Over one third of the hospitals with two thirds of the bed capacity now are under Government supervision.

State medical care depends to a large extent upon the illness of the individual. All states care for the mentally sick. About 86 per cent of all the beds in nervous and mental hospitals are in state hospitals. Thirty-seven per cent of the tuberculosis beds and about 7 per cent of the general hospital beds are operated by the states.

Local governments assume some responsibility for medical care, especially persons who become wards of the community through age, poverty, or pension.

The Government, Federal and state, is estimated to give various degrees of medical care to many million beneficiaries—estimated to cover about one seventh of the Nation's population.

5. *Insurance.* The rapid growth in the number of voluntary insurance plans and the extent of their coverage during the last few years indicate to a certain degree the medical care coverage now available to the American people. The indemnity protection provided by insurance companies has increased over 40 per cent in the last 2 years while the number insured against hospital bills has increased over 75 per cent. This increase in sickness and hospitalization insurance undoubtedly covers a considerable portion of the population. The significant fact lies in the changing attitude of the American people in seeking voluntary sickness insurance and in the growth of insurance plans. The question that naturally arises is "How effective is this coverage and are voluntary prepayment plans an answer to compulsory health insurance?"

Insurance plans are now provided under (1) industrial medical care insurance, (2) group health, (3) nonprofit hospitalization plans, and (4) prepayment medical and surgical care plans, etc. What is the coverage of these plans and what are the possibilities of potential coverage?

ORGANIZATION OF THE STUDY

The proposed investigation as a whole would lead to the publication of two volumes entitled "Medical Service in the United States—Volume I: Availability; Volume II: Evaluation."

The first part of the study would be a comprehensive, descriptive, and statistical report designed to make available reliable data on the extent of medical care and the existing and potential provisions for meeting the cost through insurance or prepayment plans, and in the case of those who cannot pay through public services or private philanthropy.

The second volume, based upon the facts assembled in Volume I, would be an evaluation of the numerous plans now in operation and those proposed. It would deal with the issues of public and private policy and indicate the means by which adequate medical care can best be provided.

A study of this scope and character is a major research undertaking. Fortunately, several groups whose professional interests are involved have or can obtain the facts relating to medical care programs in which they are immediately concerned, and their help is assured. Among these are the American Medical Association, American Dental Association, American Hospital Association, the Blue Cross, and the Blue Shield. The Research Council for Economic Security has also conducted surveys of organizations promoting better health conditions and their aid can doubtless be enlisted.

In the field of commercial insurance the United States Chamber of Commerce has for several years been preparing a list of companies handling accident and health insurance of United States residents. The Chamber will make these lists available. Also the Chamber will make available the results of a questionnaire now being circulated among the various insurance companies of the country. With the aid of the Chamber of Commerce and the help of an actuary this part of the survey could be well covered.

In the field of industrial health practices the National Association of Manufacturers would probably cooperate. This Association has published a report (October 1941) of a survey of 2,064 industrial establishments covering every type and size of manufacturing industry which has been interested in industrial medical care. Previous reports of industrial

health and medical care programs have been confined to selected plants and industries of certain sized groups. Undoubtedly, there are other industrial organizations that would be willing to cooperate in the survey. The cooperation of the Council on Industrial Health of the American Medical Association is assured.

Assembling data available in the Government agencies would appear to present no great difficulty. The required information from Veterans Administration has been partly prepared by Mildred Maroney of the Brookings Institution. In her report further study would be needed to determine the present and potential coverage of the service- and nonservice-connected disabilities. It is expected that the armed forces will cooperate.

With respect to state surveys, cooperation with state health departments and state welfare agencies possibly would be available. This part of the survey would require a special questionnaire on which the Council on Medical Service of the American Medical Association has offered its assistance. This Council has close working agreements with state medical societies and other agencies handling medical care programs.

The survey covering the philanthropies would probably constitute the greatest problem due, of course, to the variations in these organizations and the fact that in many cases the collection of statistical material has not been done. From the national organizations such as the Association for Tuberculosis, Infantile Paralysis, Red Cross, and the Community Chest, fairly accurate figures could be obtained. State civic and welfare organizations could probably furnish sources of information that would be of value in making necessary contacts for the collection of the material. The reports of the National Health Council, created to coordinate the activities of the national health organizations, would be useful.

The essential factor in order to accomplish the objectives of this survey is to have a competent directing agency to organize the study, enlist the cooperation of those who are in a position to furnish data, and to analyze and interpret the facts as a whole. The position of the Brookings Institution is such as to ensure the necessary cooperation.



Photo by Wolff

JOHN BENJAMIN NICHOLS, M.D., President, 1912

Dr. John Benjamin Nichols, the senior in priority of service in our list of living Past Presidents of the Medical Society of the District of Columbia, still seeks "greener pastures" and finds them. On July 8 of this year he returned from a two months' trip to Europe, where, with his son and daughter-in-law, Mr. and Mrs. Howard G. Nichols, and party, he visited Copenhagen, Amsterdam, Geneva, Paris, London, Edinburgh, Oslo, Stockholm and many other cities, in a total of ten countries.

To the Medical Society of the District of Columbia, with which he affiliated in 1898, Dr. Nichols contributed generously of his time and effort through the years. He was strongly instrumental in bringing about the amalgamation in 1911 of the former Medical Association of the District of Columbia with the Medical Society; for this service he won the presidency of the Society in 1912 and a citation for meritorious service in 1943. He won too the hot wrath of the antivivisectionists for his participation in 1919 and 1926 in Congressional hearings as the representative of the Society.

In 1942 Dr. Nichols undertook the considerable task of compiling and writing the History of the Society, Part II, 1833-1944, which was published in 1947. During the past three years Dr. Nichols has contributed 35 of the 50 biographical sketches which have appeared in the MEDICAL ANNALS under the caption, Washington Physicians of Yesterday. To secure this material he searched diligently among old records in the Army Medical Library and the Library of Congress. He also obtained valuable data from children and grandchildren of the physicians memorialized.

Our Living Past Presidents

After graduating in medicine from Columbian Medical College (now George Washington University) in 1891, at the age of 24, he engaged in private practice until 1931. Since 1902 he has been affiliated with Acacia Mutual Life Insurance Company as Medical Director. In 1939 he was appointed Advisory Medical Director, and has served on the Acacia's Board of Directors since 1907.

Dr. Nichols had and used the first sphygmomanometer in Washington, a home-made affair which he demonstrated before the Society in 1903. He was one of the early advocates of more liberal feeding in typhoid fever at a time when that attitude brought the risk of ostracism. In 1907 he won the Fiske Fund prize for his essay entitled "Diet in Typhoid Fever." In those days it was considered criminal malpractice to feed typhoid patients; at the present time it would be malpractice not to. For many years, 1908 to 1919, he lectured on dietetics in George Washington University.

On May 27, 1891, he married Annie Gledhill. She died shortly after they celebrated their Golden Wedding Anniversary in 1941. Their son, Howard Gledhill Nichols, with whom he makes his home at 4636 Hawthorne Lane, N.W., holds a responsible position with the Bureau of Internal Revenue, and his daughter-in-law is a prominent civic worker. During World War II Dr. Nichols' only grandson, Captain Howard Benjamin Nichols, after gaining special honors and distinction as a P-51 Mustang pilot, was killed in action, March 18, 1945, on his 68th combat mission over Germany. With the advent of a couple of great-grandchildren, Dr. Nichols now surveys a family of four generations.

Dr. Nichols is the author of many articles and books. During his years of active retirement he finds time to pursue not one but three hobbies: genealogy, writing articles for scientific journals, and traveling to near and far-off places. He is presently engaged in preparing the History of the National Genealogical Society for its fiftieth anniversary in 1953. An article entitled "Time Out: Something about Calendar Reform," which was published in the *Journal of Calendar Reform*, Second Quarter 1949, exemplifies the diversity of his scientific interests.

The records of the Columbia Historical Society have been enriched by his contributions. Among the most recent to be published is his "Contributions of the Medical Profession of the District of Columbia to the World War II Effort," a paper presented by Dr. Nichols at the annual dinner of the Columbia Historical Society, April 12, 1946, and published in the Society's "Records" this year. This article is reprinted by permission of the Society and appears on page 549 of this issue of the ANNALS.

Dr. Nichols is a Mason and a member of the Cosmos Club.

It is not necessary to enumerate all of Dr. Nichols' accomplishments; "Who's Who" has done that. He is a frequent and welcome visitor at the Medical Society's offices and is just as likely to appear in blustery as in balmy weather. A member of the staff treasures a postcard received from him last fall which conveyed eloquently in only four words his own reaction to the November election: "Well, I'll be damned!" Dr. Nichols is a man of few but carefully chosen words.

A. L. E.

HOSPITAL STAFF MEETINGS

<i>Hospital</i>	<i>Day of Month</i>	<i>Time</i>	<i>Hospital</i>	<i>Day of Month</i>	<i>Time</i>
Alexandria	1st Wednesday	8:00 p.m.	George Washington	1st Monday after 1st Tuesday	12:00 noon
Arlington	1st Thursday after 1st Monday	8:00 p.m.	Glenn Dale	Every Wednesday	1:00 p.m.
Casualty	1st Thursday	1:15 p.m.	Homeopathic	3rd Tuesday	1:00 p.m.
Children's	1st Monday	1:00 p.m.	Naval	Every Friday	1:00 p.m.
Columbia	2nd Friday	8:30 p.m.	Prince Georges	3rd Tuesday	8:30 p.m.
Doctors	1st Monday	12:30 p.m.	Providence	3rd Tuesday	11:30 a.m.
Emergency	Last Tuesday	12:00 noon	Saint Elizabeths	Every Tuesday	10:30 a.m.
Episcopal	1st Friday	8:15 p.m.	Sibley	2nd Tuesday	8:00 p.m.
Freedmen's	4th Monday	9:00 p.m.	Suburban	2nd Tuesday	8:30 p.m.
Gallinger	1st Thursday	11:30 a.m.	Veterans Adm.	By announcement	
Garfield	3rd Wednesday	12:00 noon	Walter Reed	Every Saturday	10:00 a.m.
Georgetown	1st Tuesday	12:00 noon	Washington Sanitarium	3rd Monday	8:00 p.m.

RECORD-BREAKING LOW MORTALITY IN 1949*

Mortality in the first six months of 1949 dropped to an all-time low among the many millions of Industrial policyholders of the Metropolitan Life Insurance Company. Each month except June recorded a lower death rate this year than last. For the current six-month period, the death rate was 6.7 per 1,000 policyholders, or 3.3 per cent below that for the like part of last year. Provisional data for the general population of the United States indicate a similar experience for the country as a whole.

Among the insured lives a decline in mortality is in evidence at every age period among white females and at every age but one (10 to 14 years) among white males. As may be seen in table 1 the improve-

of 1949 continues the pattern. No less than 9 diseases registered new low death rates for the period. The list includes whooping cough, diphtheria, influenza, pneumonia, tuberculosis, syphilis, appendicitis, diarrhea and enteritis, and diseases of the puerperal state. For a number of these diseases the mortality has reached an exceptionally low level, as shown in table 2.

Diphtheria and whooping cough recorded new minimal death rates of .2 and .3 per 100,000 respectively in the first six months of 1949, while the scarlet fever rate remained unchanged at its previous low of .1 per 100,000. Measles registered a death rate of .7 per 100,000, the same as a year ago, but slightly

TABLE 1

*Death Rates per 100,000 White Persons from All Causes, by Sex and Age; a Comparison of First Six Months of 1949, 1948, and 1947**

AGE PERIOD	DEATH RATES PER 100,000						PER CENT CHANGE: 1949 SINCE YEAR INDICATED			
	White males			White females			White males		White females	
	1949	1948	1947	1949	1948	1947	1948	1947	1948	1947
yrs.										
under 75	690.5	713.4	697.2	529.1	549.5	556.1	-3.2	-1.0	-3.7	-4.9
under 5	260.0	275.7	335.0	213.5	224.9	262.3	-5.7	-22.4	-5.1	-18.6
5 to 9	60.9	67.4	78.6	43.5	48.8	47.7	-9.6	-22.5	-10.9	-8.8
10 to 14	55.8	54.3	58.2	31.6	36.8	39.8	+2.8	-4.1	-14.1	-20.6
15 to 19	94.5	102.5	109.1	50.6	54.7	64.0	-7.8	-13.4	-7.5	-20.9
20 to 24	134.5	139.1	144.8	69.3	76.4	98.5	-3.3	-7.1	-9.3	-29.6
25 to 34	159.2	172.4	188.2	113.0	119.6	140.0	-7.7	-15.4	-5.5	-19.3
35 to 44	457.8	488.1	470.6	257.0	271.4	294.0	-6.2	-2.7	-5.3	-12.6
45 to 54	1,167.7	1,232.8	1,209.2	606.8	645.0	671.1	-5.3	-3.4	-5.9	-9.6
55 to 64	2,664.0	2,810.5	2,766.4	1,509.1	1,579.1	1,581.5	-5.2	-3.7	-4.4	-4.6
65 to 74	5,860.0	6,148.1	5,852.9	4,065.1	4,244.7	4,174.9	-4.7	+1	-4.2	-2.6

* Metropolitan Life Insurance Company, Industrial Premium-Paying Business—Weekly and Monthly Combined.

ment was greatest among white boys at ages 5 to 9 and among white girls of 5 to 14 years. Although the amount of improvement decreased with advance in age, it was more than 4 per cent for both sexes at ages 65 to 74. Mortality in 1949 was also lower than in 1947 at virtually every age period. The decline in mortality over the two years amounted to as much as 20 per cent for white males under 10 and for white females in the age range 10 to 34 years.

Increasing control over the acute conditions has become a familiar feature of the mortality report for recent years, and the record for the first six months

higher than in 1945 and 1947. So far in 1949, the incidence of measles in the general population has exceeded that of last year, which was a "measles year." However, for the 4 communicable diseases of childhood as a group the death rate for the past six months was 1.3 per 100,000, or 13 per cent below that for the like part of 1948 and less than one half that of five years ago.

On the other hand, the death rates from epidemic meningitis and acute poliomyelitis are somewhat higher than a year ago. Since April 1948, for each month but one, the number of cases of acute poliomyelitis reported in the general population of the United States was higher than for the corresponding

* Reprinted from the Statistical Bulletin of the Metropolitan Life Insurance Company, 1949, 30, 3.

month of the preceding year. Currently the cases are concentrated in the southwestern part of the country. In June, more than one half of all the cases reported occurred in Texas, Oklahoma, and California. Among the Metropolitan Industrial policyholders the death rate from acute poliomyelitis for the first six months of 1949 was .2 per 100,000; in 1948 it was .1, and two years ago .3.

The low incidence of the respiratory conditions has been an appreciable factor in the favorable health

record this year. Influenza and pneumonia have each recorded death rates approximately one sixth lower than their previous minima reported at this time last year. The mortality from tuberculosis likewise is continuing its downward trend. The decline for the first six months amounted to about 10 per cent from the level of a year ago.

The hazards of childbearing continue to decline. The mortality from the diseases of the puerperal state reached a new low in the first half of 1949,

TABLE 2
Crude Death Rates* per 100,000 Policyholders from Selected Causes†
JUNE 1949

CAUSE OF DEATH	ANNUAL RATE PER 100,00 POLICYHOLDERS*				
	June 1949	June 1948	Year to date: end of June		
			1949	1948	1947
ALL CAUSES—TOTAL	619.2	610.6	668.8	691.7	694.8
Typhoid fever.....	—	0.1	§	0.1	0.2
Measles.....	.6	1.0	.7	.7	.3
Scarlet fever....	.1	.2	.1	.1	.1
Whooping cough	.2	.2	.3	.4	.6
Diphtheria.....	.2	.2	.2	.3	.7
Influenza.....	1.0	.7	2.0	2.4	4.1
Pneumonia (all forms)	13.7	18.6	21.9	26.3	27.0
Tuberculosis (all forms)...	23.3	26.0	25.6	28.4	32.3
Tuberculosis of respiratory system...	20.9	24.0	23.4	25.8	29.1
Syphilis.....	6.0	5.4	6.0	6.8	7.3
Acute poliomyelitis	.1	.1	.2	.1	.3
Cancer (all forms).....	106.7	108.1	114.4	112.6	109.7
Diabetes mellitus.....	24.6	21.2	25.9	25.0	24.3
Principal chronic cardiovascular-renal diseases	294.7	278.8	321.7	332.4	328.1
Cerebral hemorrhage.....	55.7	56.7	59.9	62.9	63.3
Diseases of the coronary arteries and angina pectoris.....	75.3	69.4	80.6	81.0	73.7
Other chronic heart diseases‡	132.6	124.5	147.4	152.8	152.5
Chronic nephritis	31.1	28.2	33.8	35.7	38.6
Diarrhea and enteritis	1.9	2.2	2.6	2.9	3.6
Appendicitis	1.7	2.6	2.1	2.6	3.0
Puerperal state—total.....	2.2	1.9	2.2	2.4	3.2
Suicide.....	7.5	6.7	7.3	7.0	6.9
Homicide.....	1.8	3.0	2.9	3.4	3.3
Accidents—total.....	39.4	39.3	36.3	38.6	40.7
Home accidents.....	8.3	7.5	10.5	10.6	10.6
Occupational accidents	3.6	4.0	3.5	4.3	5.0
Motor vehicle accidents	12.2	13.7	12.3	12.6	14.1
All other causes of death...	93.5	94.5	96.6	99.2	99.4

* The rates for 1949 are subject to slight correction, since they are based on provisional estimates of lives exposed to risk.

† Metropolitan Life Insurance Company, Industrial Premium-Paying Business—*Weekly and Monthly Combined*.

‡ International List (1940) titles 92, 93 (c), (d), (e), and 95. § Less than 0.05 per 100,000.

NOTE—The causes of death shown in the above table have been classified in accordance with the Manual of the International List of Causes of Death and Joint Causes of Death (1939).

despite the continued high level of the birth rate. In the past five years, when the number of births rose to an all-time high, the mortality from puerperal causes was one third less than in the comparable months of the preceding five years.

The chronic degenerative diseases also have made a comparatively favorable record so far in 1949. The crude death rate from the cardiovascular-renal diseases, which account for approximately one half of all deaths from disease, was down somewhat. The rate, moreover, was lower than the average for the preceding five years. Although the crude death rate from diabetes is higher so far in 1949 than in 1947 or 1948, it is still below the average for the five years 1942 to 1946. Cancer alone among the diseases of middle and later life has continued to show a higher crude death rate for a number of years. Part of the increase is explained by the aging of the policyholder group.

Among the external causes of death, homicide and accidents (all forms) have registered lower mortality this year than last. For occupational accidents, the death rate has declined 19 per cent and for "other accidents" 10 per cent. There have been only small declines for home and for motor vehicle accidents. Suicide has registered a slightly higher rate than in either of the past two years.

The Statistical Bureau of the Metropolitan Life Insurance Company keeps a current record of catastrophes—accidents in which 5 or more persons are killed. The facts for the first six months, compiled from a variety of sources, are here briefly summarized.

Catastrophic accidents took about 600 lives in the general population of the United States in the first half of 1949, a slightly lower toll than in the comparable period of 1948. Fewer lives were lost this year than last in civilian aviation, water transportation, floods, explosions, railroad and coal mine accidents. Not a single disaster occurred in domestic scheduled air transport service, whereas in the first half of last year there were three such catastrophes taking a total of 60 lives.

On the unfavorable side, catastrophes in which fires, motor vehicles, tornadoes, blizzards, and earthquakes were involved claimed more victims this year than last. The worst disaster in the first half of

1949 was the fire which broke out near midnight of April 4 in a hospital at Effingham, Ill.; this holocaust alone killed 75 persons, considerably more than any single accident in all of 1948. Chain-like tornadoes in January caused 59 deaths in Arkansas and Louisiana, 54 of which occurred in one community—Warren, Ark. A blizzard in the Mountain states took about 25 lives.

CORRESPONDENCE

BATAVIA, N. Y., August 30, 1949

MR. THEODORE WIPRUD
MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA
1718 M STREET, N.W.
WASHINGTON 6, D. C.

DEAR TED:

* * *

I have just enjoyed reading the latest *Medical Annals*. It still strikes me as one of the best of the sectional medical journals and of course its interesting news of many old friends is delightful.

You might like to have your attention drawn to my being another one of your members who attended the A.M.A. convention in Atlantic City last June. I had an exhibit in the Scientific Assembly entitled "A new blood supply for ischemic hearts and the role of small blood vessels in the heart and nerves," for which the Committee on Awards saw fit to give an award of Honorable Mention for originality and excellence of presentation. This exhibit was an extension of the work done for which the Davidson Lecture Award was given me by the Medical Society of the District of Columbia and which was presented at your scientific assembly in Washington several years ago.

As you know I am serving as Chief of the Medical Service in the Veterans Administration Hospital here, and also as Lecturer in Medicine at the University of Buffalo School of Medicine. We are looking forward to an early move into the magnificent new 1,000-bed general medicine and surgery V.A. Hospital in Buffalo. This building has just been completed and is expected to open soon. My family and I are enjoying our stay here a great deal, although still remember our Washington years with joy and appreciation.

* * *

Sincerely,
JOSEPH T. ROBERTS, M.D.

CONTRIBUTION OF THE MEDICAL PROFESSION OF THE DISTRICT OF COLUMBIA TO THE WORLD WAR II EFFORT*

JOHN BENJAMIN NICHOLS, M.D.

Washington

Whenever a war comes along the medical profession is confronted with an urgent and tremendous task. There is hardly any other professional or technical group that is involved more completely, more profoundly, or more unescapably than is the medical profession. Not only are the physicians affected who join the colors, but also those who stay at home and carry the extra burden of the civilian practice and work of the absentees. The profession is committed to a one hundred per cent "must" obligation.

The service rendered by the physicians of the District of Columbia in the late War can be expressed by a few figures.

A total of 845 physicians from this area entered the armed forces and rendered active, arduous, and efficient service in all parts of the world. The total number of regularly registered physicians in the District of Columbia is about 1,850. Of this number the 845 service physicians would constitute 46 per cent; although there may have been additional outside physicians temporarily in Washington who were drawn upon.

Included in the 845 service physicians were 389 recent graduates and hospital residents (21 per cent), who were not yet engaged in private practice and were therefore more footloose and did not have so great a sacrifice to make as those already in business. The Washington medical schools graduate two to three hundred students annually, which provided a considerable reservoir available for service. The remaining physicians, who gave up actual active practice to engage in the military services, constituted about 25 per cent of the total.

Of about 925 Active members of the Medical Society of the District of Columbia 231 entered the Army or Navy—25 per cent; this was a trifle less than the proportion who served in World War I. Of the current Associate members of the Medical Society, 46, or 22 per cent, entered the services.

Of the Washington physicians in the service 5 are known to have lost their lives from military casualties, as follows:

SAM FUTROVSKY: First Lieutenant, Medical Corps, U. S. Army. Born 1912. Graduated M.D. 1940, George Washington University. Resident National Homeopathic Hospital, Washington, D. C. Flight surgeon at Elgin Field, Florida, where he died October 6, 1942, from injuries sustained in an airplane accident.

HARRY RAYMOND RINGNESS: Lieutenant, Medical Corps, U. S. Navy Reserve, 1941. Born 1912. M.D. 1939, George Washington University. Killed in action in aerial combat October 13-14, 1942, at Guadalcanal. Posthumously awarded the Navy Cross "for extraordinary heroism as flight surgeon of a Marine aircraft group during action against enemy Japanese forces on Guadalcanal on the night of October 13-14, 1942."

EDWARD RAYMOND STONE, JR.: First Lieutenant. Born 1913. M.D. 1939, Georgetown University. Served with British Army. Killed in action November 4, 1943, in Egypt.

RIPLEY BUCKINGHAM: Captain, Medical Corps, U. S. Army. Born 1912. M.D. 1941, George Washington University. Intern Garfield Hospital. Entered Army 1942. Killed in action in China August 18, 1944.

CHARLES MARION MUSSO, JR.: Major, Medical Corps, U. S. Army. Born 1907. M.D. 1935, Georgetown University. Licensed 1938. Entered Army 1941. Died December 24, 1944, in France, from gunshot wounds.

There were four or five deaths from disease among the Washington physicians during their military service, not incident to war, mostly sudden deaths from heart or vascular disease. This number was no greater than would be naturally expected among the number of individuals and the time involved.

Numerous citations for military honors and decorations were awarded to our local physicians, the details of which, and of wounds and capture suffered, are not at this time available.

* Presented at the annual dinner of the Columbia Historical Society, April 12, 1946, and published in the Records of the Columbia Historical Society of Washington, D. C., 1949, 48-49, 108.

CALENDAR OF MEETINGS

September 6	Subcommittee on Maternal Welfare
	Committee on Attendance, Annual Scientific Assembly
	Committee on Public Meeting, A.S.A.
	Committee on Social Events, A.S.A.
September 9	Committee on Arrangements, A.S.A.
	Committee on Radio, Television and Motion Pictures, A.S.A.
September 13	Registered X-ray Technicians of Washington
	Medical Officers' Reserve Units
September 19	Program Committee
September 20	Grievance Committee
September 21	Subcommittee on Finance
September 22	Washington Psychiatric Society
September 23	Committee on Emergency Medical Care
September 26	Executive Board
	Committee on Social Events, A.S.A.
September 27	Committee on Public Relations
	Medical Officers' Reserve Units
September 29	D. C. League of Nursing Education
	Health and Hospital Section of United Community Services

The burden of the war effort fell heavily on the physicians who remained at home, as well as upon those who were absent with the colors. In the United States as a whole there are about 185,000 regularly registered physicians, of whom about 63,000 were engaged in the service of the Army or Navy—about one third. That meant that the two thirds remaining at home had to carry on the practice of the absentees; this would amount to a general increase of fifty per cent in their work—and much more in the industrial centers where there was a great influx and increase of the population. The extra burden thus thrown upon the civilian physicians for the medical care of the public was something staggering, almost unbelievable; and the public felt the pinch.

In addition to the increased practice of the stay-at-home physicians, there was much other medical service connected with the war effort which they

were called upon to perform, service with local agencies and committees. Among these were the Draft and Selective Service, in which some 250 Washington physicians assisted; the Procurement and Assignment of Physicians for Service; Red Cross; Civilian Defense; Preinduction Service; committees on Military Preparedness and Resources, Medical Military Affairs, War Participation, Rehabilitation, Medical Service in the District of Columbia, etc.

The arduous extra work done by the home physicians was performed without being publicized, in obscurity and anonymity; they had their reward in the approval of their own consciences and the joy of rendering patriotic service for their country.

Our physicians are now returning home from their military service in large numbers, to resume their civilian practice. They are confronted with an acute and critical housing shortage and finding great difficulty in procuring quarters for residence and office facilities. They need and have earned all the help that can be given them toward their rehabilitation; any service rendered them will be a gesture of gratitude and appreciation and a patriotic contribution to the final liquidation of the war effort.

WOMAN'S AUXILIARY NOTES

The Woman's Auxiliary to the Medical Society of the District of Columbia held its first meeting of the year on Wednesday, October 12, 1949, at 11:00 a.m., in the library of the Medical Society Building.

The officers and chairmen of committees for the year 1949-1950 are as follows:

President: Mrs. Walter Freeman
President-elect: Mrs. William M. Ballinger

Elected Officers:

First Vice President: Mrs. Oscar B. Hunter, Sr.
Second Vice President: Mrs. J. Lawn Thompson, Sr.
Recording Secretary: Mrs. Duane C. Richtmeyer
Corresponding Secretary: Mrs. George Stuart
Treasurer: Mrs. James E. Wissler

Appointed Officers:

Parliamentarian: Mrs. R. Stevens Pendexter
Historian: Mrs. Albert E. Marland

Chairmen, Standing Committees:

Membership: Mrs. Marcel Foret
Ways and Means: Mrs. Edward Morrison
Program: Mrs. James M. Fadeley

(Continued on page 558)

News and Personals

The Southern Medical Association will hold its annual meeting in Cincinnati, Ohio, November 14-17, upon the invitation of the Campbell-Kenton County Medical Society of Northern Kentucky. The Netherland Plaza Hotel has been designated as the general hotel headquarters.

Dr. Oscar B. Hunter, President of the Association, will open the convention at a general session, limited to members, on Monday, November 14, at 10 a.m. The clinical sessions will begin the same afternoon at 2 p.m.; two have been scheduled for the first day, one general medical and the other general surgical.

A large delegation of Washington physicians is expected to be in attendance on President's Night, November 16, which will be the only night session. Among those planning to attend are **Dr. Arnold McNitt**, Chairman of the Executive Committee of the Council, and **Dr. Helen Gladys Kain**, Chairman of the Women Physicians.

A special announcement regarding the meeting will be found on page xxxiii of this issue of the ANNALS.

The Tenth Annual Meeting of the Ambulatory Fracture Association will be held in Toronto, Ontario, October 24-27. **Dr. Custis Lee Hall**, President of the Association, will preside at the opening session and will deliver a paper during the scientific program on "Reconstruction of Ununited Fractures of the Hip."

The Annual Conference of State Medical Association Secretaries and Editors of the American Medical Association will be held at AMA Headquarters, November 3 and 4. **Dr. Wallace M. Yater**, Editor of the ANNALS, and **Theodore Wiprud**, Secretary of the Medical Society, are planning to attend the meetings.

On the two following days, November 5 and 6, **Mr. Wiprud** will attend the Public Relations Conference, which is also sponsored by the AMA.

The Sixth National Conference of County Medical Society Officers of the AMA (known as the Grass Roots Conference) will convene at the Hotel Statler in Washington, D. C., December 8. A first-hand description of three or four of the Nation's "Outstanding Achievements in Community Medical Leadership" will constitute the program.

The annual meeting of the American Board of Obstetrics and Gynecology was held in Chicago, May 8-14, 1949, at which time 236 candidates were certified.

New bulletins, incorporating changes made at the recent meeting, are now available for distribution upon application and give details of all new regulations.

The next scheduled examination (part I), written examination and review of case histories, for all candidates will be held in various cities of the United States and Canada on February 3, 1950. Applications will be accepted until November 5, 1949. Requests for application forms and bulletins may be made to the American Board of Obstetrics and Gynecology, 1015 Highland Building, Pittsburgh 6, Penna.

The American Urological Association offers its annual award of \$1,000 (first prize \$500, second prize \$300, and third prize \$200) for essays on the result of some clinical or laboratory research in urology. Competition shall be limited to urologists who have been in such specific practice for not more than five years and to residents in urology in recognized hospitals.

The first prize essay will appear on the program of the forthcoming meeting of the American Urological Association, to be held at the Hotel Statler, Washington, D. C., May 29-June 1, 1950.

Essays must be in the hands of the Secretary, **Dr. Charles H. deT. Shivers**, Boardwalk National Arcade Building, Atlantic City, N. J., before Febru-

ary 20, 1950. He will gladly furnish full details of the contest upon request.

The **American Goiter Association** again offers the **Van Meter Prize Award** of \$300 and two honorable mentions for the best essays submitted describing original work on problems related to the thyroid gland. The Award will be made at the annual meeting of the Association which will be held in Houston, Texas, March 9, 10 and 11, 1950, providing essays of sufficient merit are presented in competition.

The competing essays may cover either clinical or research investigation, should not exceed 3,000 words in length, and must be presented in English. A typewritten, double-spaced copy should be sent in duplicate to the Corresponding Secretary, Dr. George C. Shivers, 100 East St. Vrain Street, Colorado Springs, Colo., not later than January 15, 1950. The essay will be published in the annual *Proceedings* of the Association.

The **Directory of Psychiatrists and Clinical Psychiatric Facilities in the Washington area** is now sponsored by the Washington Psychiatric Society. A revised edition has just been published and is available to interested physicians. The directory lists data concerning nearly 300 psychiatrists and 20 clinical psychiatric facilities. Physicians wishing assistance in the handling and referral of patients with emotional problems might well find the directory quite useful. Copies sell for one dollar. They may be obtained from the Medical Society's offices or from the Secretary of the Society, Dr. Henry P. Laughlin, 6627 East Avenue, Chevy Chase 15, Md.

The **Medical Society's Executive Board**, at its meeting, August 22, selected two lecturers from the Medical Society's membership. **Dr. Arthur A. Morris** was chosen the **Davidson Lecturer for 1949**, his paper on "The Surgical Treatment of Psychomotor Epilepsy" being considered the best of the manuscripts submitted in competition for this award.

Dr. Brian B. Blades was selected as the **Kober Lecturer for 1950**. Each third year the Executive Board of the District Medical Society is privileged to make this selection from its own membership or from members of the Washington Academy of Sci-

ences, the National Tuberculosis Association, and the Washington Anthropological Society.

The Board approved the creation of a new committee, to be designated as the **Committee on Hospital and Professional Relations**.

The **American Association for the Advancement of Sciences** has made available to the Washington Academy of Sciences the sum of \$596.50 for the purpose of assisting young and promising scientists engaged in or planning worthy research projects.

Grants may be used for the purchase of necessary equipment and supplies or for compensation to an assistant, but may not be used to defray the costs of publication or of typing manuscript. The recipient of a grant is required to make progress reports on forms supplied by the A.A.A.S.

Members of the Washington Academy of Sciences or its affiliated societies, of which the District Medical Society is one, are eligible to apply for a grant-in-aid. Requests, together with a statement describing the nature of the research project and the amount of the desired grant, should be sent to the Chairman of the Committee on Grants-in-Aid, Dr. J. Leon Shereshefsky, Department of Chemistry, Howard University, Washington 1, D. C., not later than November 1, 1949.

Dr. Richard Whelton, Medical Superintendent of **Gallinger Municipal Hospital**, announces the following teaching conferences to be held each week throughout the scholastic year, September to June:

Medical Conference: Wednesday, 11:30 a.m., Medical Auditorium; conducted by members of the Department of Medicine, George Washington University School of Medicine

Combined Medical-Surgical Conference: Thursday, 2:30 p.m., Medical Conference Room; conducted by the combined staffs of Georgetown University School of Medicine

Combined Medical-Surgical Conference: Thursday, 2:30 p.m., Tuberculosis Conference Room; conducted by the combined staffs of George Washington University School of Medicine

Neurology Conference: Friday, 1:30 p.m., Medical Conference Room; conducted by the combined Neurology and Neurosurgery staffs, Georgetown and George Washington University Schools of Medicine

Clinico-pathological Conference: Friday, 12 Noon, Medical Conference Room; conducted by the Medical Staff, Georgetown University School of Medicine

Grand Medical Rounds are conducted by the Medical Staff of Georgetown University School of Medicine the first Tuesday of every month at 8 p.m.

Dr. J. F. Fazekas, Chief of Staff, conducts a Staff Conference the first Thursday of each month at 11:30 a.m.

All members of the District Medical Society are cordially invited to attend any of these meetings.

The following members of **Physician-Veterans of World War II** were elected to office at its last annual meeting:

Dr. O. Benwood Hunter, *President*; Dr. Charles P. Ryland, *Vice President*; Dr. Eugene J. McDonald, *Secretary-Treasurer*; Dr. John A. Reisinger, *member of Executive Council*.

The principle of compulsory medical insurance was discussed and unanimously opposed at this meeting. A copy of the resolution opposing this measure was sent to every member of the Senate and House of Representatives. Replies were received from approximately 150 legislators, nearly all of whom were similarly opposed to compulsory medical insurance.

Dr. Warren Burch is chairman of the committee which is making plans for the annual dinner at the Mayflower Hotel, December 7. This dinner meeting will be held during the Interim Session of the AMA and an unusually good attendance is expected. The name of the principal speaker will appear in the next issue of the *ANNALS*.

Following the recommendation of the National Advisory Heart Council, **Surgeon General Leonard A. Scheele of the Public Health Service approved grants** totalling \$8,614,737 to be awarded 85 medical schools and research institutions in 34 states and the District of Columbia. The funds will be administered by the National Heart Institute and will be used for heart research, expanded programs of heart teaching in medical schools, and for building additional heart research laboratories throughout the country.

These grants are in addition to \$1,200,000 announced in July and provide a total of nearly \$10,000,000 in Federal funds for the fight against heart disease during the fiscal year ending June 30, 1950.

Of \$95,836 allocated to the District of Columbia, \$67,836 will be used for research projects and \$28,000 for teaching. Georgetown University will re-

ceive the largest share in the District, \$52,928; Howard University second, with \$32,000, and George Washington University, \$10,908.

Research funds will be administered in the three institutions as follows:

George Washington University School of Medicine: Dr. Brian Blades, \$10,908 for study of "restoration of blood vessels."

Georgetown University School of Medicine: Dr. Joseph M. Barker, \$6,800 for study of "electrocardiographic studies of (A) experimental ventricular hypertrophy and myocardial infarction in the dog; (B) various precordial leads, localized intraventricular block, and cardiac arrhythmias under treatment with quinidine"; Dr. John J. Curry, \$7,128 for study of "cardiac asthma"; Drs. Charles F. Geschickter, Harold Jeghers, and William B. Walsh, \$25,000 for study of "the effect of organomagnesium compounds on essential hypertension."

Howard University: Dr. John B. Johnson, \$18,000 for study of the "relationship between electrographic signs of right ventricular hypertrophy and the pulmonary arterial pressure."

Howard University and Georgetown University received \$14,000 each to further teaching programs. At Georgetown these funds will be administered by Dr. Hugh H. Hussey for the improvement of cardiovascular teaching. Howard University will use the funds to establish a new training program.

George Washington University School of Medicine opened its 126th annual session, September 19, with an assembly attended by 325 students, 95 of them freshmen. **Dr. Raymond B. Allen**, Director of the Medical Services Division of the Department of Defense, delivered the principal address. He spoke on "Attitudes and Perspectives of the Modern Doctor."

Following the assembly **Dr. Walter A. Bloedorn**, Dean of the School of Medicine, gave a luncheon in honor of Dr. Allen at the Carlton Hotel. Among the guests were the University's Board of Trustees, the faculty of the School of Medicine, high-ranking officers from the Army, Navy, Air Force and Public Health Service, and many other distinguished physicians and laymen.

The Washington Psychiatric Society was formally approved as an affiliate body of the American Psy-

chiatric Association at the latter's annual meeting in Montreal, Canada, in May. The Washington Society now has a membership of about 200.

Under the chairmanship of Dr. Norman Q. Brill, the Program Committee has scheduled an outstanding scientific program for the year. On Thursday, November 17, Dr. Nolan D. C. Lewis, Professor of Psychiatry at Columbia University, will address a joint meeting of the Psychiatric Society and the Section on Neurology and Psychiatry of the District Medical Society. His subject will be "Lobotomy Research."

Two meetings have already been held this fall. Dr. Paul Haun, Chief of the Hospital Construction Unit of the Psychiatry and Neurology Division of Veterans Administration, addressed the members on "Psychiatry and Ancillary Services," September 22. A joint meeting with the Maryland Psychiatric Society was held on October 21. Dr. Sandor Rado, Clinical Professor of Psychiatry of Columbia University, was the principal speaker.

Scientific meetings have been scheduled for December 10, February 18, March 10 and April 14. New officers will be elected at the annual meeting, January 12. All of these meetings will be held in the District Medical Society's auditorium. A dinner dance is being planned for Saturday, December 17. Further announcements regarding these events will appear in the *MEDICAL ANNALS*.

Three Washington hospitals, **Emergency, Garfield, and Episcopal Eye, Ear and Throat**, will join facilities as the **Washington Hospital Center**, with new buildings to be located on the present Naval Observatory grounds. Major General Philip B. Fleming, Chairman of the United States Maritime Commission, was elected President of the corporation at the first meeting of the Center's Board of Directors. Mrs. Millard E. Tydings, wife of the Maryland Senator who introduced the bill in Congress to provide funds for the Center, was elected Vice President. Other officers elected were: A. Murray Preston, member of the Board and Executive Committee of Episcopal Hospital, Secretary, and Frederick Bradley, Washington attorney, Treasurer.

It is estimated that it will require almost two years for the Naval Observatory to move from its present site, after which it will take another two years to complete the Center. Under present plans each of the

three hospitals will maintain its identity but many physical and medical facilities will be shared in common.

Dr. Hugh C. Wilkerson, Chief of the Diabetes Division, USPHS, addressed the **Diabetes Association of the District of Columbia**, October 5, on "Finding the 1,000,000 Undiscovered Diabetics in the United States." The program was one of the local events of Diabetes Week, and was held in the Medical Society's auditorium.

Dr. Murray M. Copeland, Professor of Oncology at Georgetown University School of Medicine, presented a paper on "Benign Bone Tumors" at the Cancer Symposium of the 35th Annual Clinical Congress of the American College of Surgeons, in Chicago, October 19.

Following the Congress he attended the National Cancer Coördinators' Meeting at the University of Minnesota, Minneapolis, October 21 and 22.

Invited to address the staff meeting at Garfield Memorial Hospital, October 12, he discussed "Bone Diseases with Osteoporotic or Malacic Changes." He was also one of the guest speakers at the First Annual Meeting of the Southwestern Surgical Congress, which was held in Houston, Texas, September 26, 27 and 28.

Dr. Winfred Overholser delivered the Richard H. Hutchings Memorial Lecture at Syracuse (New York) University, October 3. His subject was "Modern Trends in Psychiatric Treatment." This was the first of a series of memorial lectures in honor of the late Richard H. Hutchings, M.D., former Editor of *Psychiatric Quarterly*, author, teacher, and administrator. The Syracuse Medical College was selected as the place for the first lecture since Dr. Hutchings taught there for many years. Dr. Hutchings was Superintendent of St. Lawrence State Hospital and later of Utica State Hospital for many years.

Dr. Charles Stanley White, President and member of the Board of Directors of the various units of the Medical Center, and William T. Faricy, President of the Association of American Railroads, were appointed new members of the Board of Directors of Riggs National Bank, September 13.

Dr. Alvin B. C. Knudson, Chief of the Physical Medical Rehabilitation Division, Department of Medicine and Surgery, Veterans Administration, addressed the 27th Annual Meeting of the American Congress of Physical Medicine and Rehabilitation, September 7. The Congress was held at the Netherland Plaza Hotel in Cincinnati. The subject of Dr. Knudson's address was "Present Challenge of Physical Medicine and Rehabilitation in the Veterans Administration."

Augustus C. Taylor, veteran pharmacist, was presented with the District of Columbia's highest award, a Certificate of Merit, by Commissioner Guy Mason when Mr. Taylor retired, August 25, after completing 43 years of service on the District Board of Pharmacy. He had been President of the Board since 1914.

Mr. Taylor, the only living member of the original group which made up the Board when it came into being under the Pharmacy Law of 1906, is credited largely with the responsibility of its establishment. He helped draft the Pure Food and Drug Act and the Harrison Narcotic Act, instigated the organization of the District Pharmaceutical Association, and was one of the early advocates of an accrediting agency for pharmacy schools.

He is an honorary member of the National Association Boards of Pharmacy, a member of the National Association of Retail Pharmacists, and President Emeritus and charter member of the District of Columbia Veteran Druggists Association. He is still employed by Peoples Drug Stores as a consultant on prescription compounding.

Mr. and Mrs. Taylor reside at 1723 Upshur Street, N.W.

The District Board of Commissioners appointed John E. Donaldson to membership on the Board for a five-year term to succeed Mr. Taylor.

Dr. J. Ross Veal, Associate Professor of Surgery of Georgetown University and President of the Washington Heart Association, addressed the North Carolina Heart Association at its meeting in Winston-Salem, September 8. His address was entitled, "Diseases of the Peripheral Veins." Dr. Veal also opened discussion of a paper by Dr. Howard B. Sprague of Boston on "Management of the Heart in Major Surgery."

Mr. Fred A. Menk, formerly Superintendent of Kahler Hospital in Rochester, Minn., assumed his new duties as Assistant Superintendent of **George Washington University Hospital**, September 15. Mr. Menk, a native of St. Paul, Minn., completed studies in hospital administration at the University of Minnesota. He succeeds Mr. Avery Millard, who has resigned.

Dr. Joseph F. Fazekas has been appointed Chief of Staff at **Gallinger Municipal Hospital**, after serving previously as Chief Medical Officer.

BOOK REVIEWS

Handbook of Materia Medica, Toxicology, and Pharmacology, 4th ed. FORREST RAMON DAVISON, M.Sc., Ph.D., M.B., Consultant and Toxicologist, Minneapolis, Minn.; formerly Assistant Professor of Pharmacology in the School of Medicine, University of Arkansas, Little Rock; Medical Department, The Upjohn Company, Kalamazoo, Mich.; Assistant Professor of Pharmacology, University of Tennessee Medical School; Toxicologist to University Clinics, Memphis, Tenn. Price, \$8.50. Pp. 730, with 35 illustrations, including 4 in color. St. Louis: Mosby, 1949.

This textbook of pharmacology has been very popular for students of medicine as indicated by the fact that it has gone through 4 editions in 9 years and that the previous edition went through 5 reprints. The text has been designed for students and practitioners of medicine but has found greater popularity among the former group.

As mentioned in the introductory chapter, pharmacology is one of the more recent developments of the medical and biological sciences, and although closely related to other sciences, it is neither possible nor advisable to set up too sharp a line of demarcation between it and other studies, such as pharmacy, physiology, pathology, biochemistry and internal medicine. The problem arises, therefore, as to how much of the related sciences should be included in a book of this type. It is generally agreed that, in the teaching of pharmacology, a brief outline or summary of the related sciences should precede the group of drugs under discussion for adequate presentation of drug action. Davison has adequately and briefly presented the preliminary factual material.

The book is divided into two parts. Part I contains four chapters on basic principles of pharmacology, materia medica, prescription writing, and toxicology. Part II consists of various chapters on drugs acting on various systems of the body. There are 5 chapters on "Biologi-

cals," which include miscellaneous drugs which could not be more adequately categorized. These include vitamins, hormones, hematinics, serums and vaccines, blood, blood derivatives, and blood substitutes. The text also includes a special chapter on "miscellaneous" drugs, which include antihistaminics, protein and amino-acid preparations, snake venom, Rhus preparations, arsenic, fluorides, helium and gold. Miscellaneous material, therefore, covers 137 pages of the book.

Duplication of material sometimes occurs in the text. This is noted, for instance, under folic acid. This is discussed under the chapter on vitamins and also under the chapter on hematinics. The structural formula for folic acid appears unnecessarily in both sections. There is no reference in one section to the discussion of folic acid in the other. The dosage for folic acid also differs in the two sections.

The sections on drugs acting on the central nervous system and cardiovascular system are, in general, well done. The author's use of digitalis as "a therapeutic test to detect mild congestive failure" is open to criticism. Methods are available for determining precisely the presence of congestive heart failure and reliance should not be placed upon the "therapeutic test."

Significant new drugs are discussed, including polymixin, aureomycin, rutin, detergents, "nitrogen mustards," and radioactive phosphorus. New information on hormones, vitamins, and antimalarials, is also presented.

The book is well bound, the paper is of good quality, and the printing is very legible. The title of the volume is rather extensive, and since pharmacology, as defined in the book, includes materia medica and toxicology the book could simply be called "Textbook (or Handbook) of Pharmacology." The book was originally one of "The Synopsis Series," but its dimensions have been increased, although there are fewer pages than in the preceding edition.

The book will find wide appeal among medical students. It should also appeal to general practitioners who are interested in more intelligent drug therapy.

A. EARL VIVINO, M.D.

Current Therapy 1949—Latest Approved Methods of Treatment for the Practicing Physician. HOWARD F. CONN, M.D., Editor. Consulting Editors: M. Edward Davis, Vincent J. Derbes, Garfield G. Duncan, Hugh J. Jewett, William J. Kerr, Perrin H. Long, H. Houston Merritt, Paul A. O'Leary, Walter L. Palmer, Hobart A. Reimann, Cyrus C. Sturgis, Robert H. Williams. Price, \$10.00. Pp. 672. Philadelphia: Saunders, 1949.

This volume represents an attempt to give practicing physicians authoritative information on the latest methods of treatment. The list of consultants and contributors contains the names of many outstanding clinicians, insuring an emphasis on practical therapy. The book itself is easy to read and set up in two-column format.

The subject matter is divided into fourteen sections covering all of the common diseases met with in practice. A complete index is included which makes the material easily accessible. In diseases where therapy is controversial more than one method of treatment is outlined.

Very few references are included. In the reviewer's opinion the addition of a few well chosen references would afford a source of supplemental information especially valuable in complicated cases.

The volume is recommended for students and practitioners of medicine.

JOHN J. CURRY, M.D.

MARY HOLMES, M.D. (1874-1949)

Dr. Mary Holmes, retired physician and a Life member of the Medical Society of the District of Columbia, died September 7, 1949, at her home, 4634 Ellicott Street, N.W. Following a coronary thrombosis in 1946, her numerous activities had been considerably curtailed.

Born in New Lexington, Ohio, March 15, 1874, the daughter of James Monroe Holmes and Mrs. Frances Turner Holmes, she moved with her parents to Washington when she was nine years old.

She was a member of the first class which graduated from Eastern High School. After completing a teacher's training course at Washington Normal School (now Wilson Teachers College), she taught for several years, 1894-1900, in the Carberry School. Pursuing an interest which originated in childhood, she enrolled as a medical student in National University (which later merged with George Washington University). Graduating in 1900, she studied for a year at the Woman's Medical College of Pennsylvania, and served a year's internship at West Philadelphia Hospital for Women.

Dr. Holmes began practicing in the District of Columbia in 1903. Although a general practitioner she confined her work largely to diseases of women and children. She was the only woman physician in the District of Columbia chosen as a life extension medical examiner for a large life insurance company.

She served on the medical staff of Sibley Memorial Hospital since its organization and held emeritus status at the time of her death. She was also on the clinical staff of Suburban Hospital. From 1919 to 1945 she was on the faculty of the Nurses' Training School at Sibley Hospital. She was attending physician at the Methodist Home from 1925 to 1939.

She retired in 1939, but when Dr. Charles P. Ryland entered the armed services she agreed to take over his practice for the duration of the War, which she did in December 1942 and carried on until Dr. Ryland's return early in 1946. During both World Wars she taught first aid courses for the American Red Cross.

Dr. Holmes became a Life member of the District Medical Society in 1944, having affiliated with the Medical Association of the District of Columbia in 1903 and with the Medical Society in 1904. She was a member of the American Medical Association, the American Medical Women's Association, the Southern Medical Women's Association, the Women's Medical Society of the District of Columbia, and the George Washington University Medical Society. She was very active in the work of her church, the Metropolitan Memorial Methodist, where she had been a member since 1888.

After her retirement Dr. Holmes became proficient in a number of hobbies, including flower gardening, needlework and stamp collecting.

Surviving her are two sisters, Miss Fannie Holmes, with whom she made her home, and Mrs. Jason F. Defandorf, of Garrett Park, Md.

SENECA BRAY BAIN, M.D. (1874-1949)

Dr. Seneca Bray Bain, a practicing physician in Washington for nearly half a century, died September 2, 1949, at his home, 9210 Flower Avenue, Silver Spring, Md., following a long illness.

A native Texan, Dr. Bain was born in Gatesville, February 10, 1874, the son of a physician, Dr. Seneca McNeil Bain, and Mrs. Annie M. Bain. He attended high school and the Willis Male and Female College in Willis, Texas.

Dr. Bain came to Washington in 1895 to study dentistry at National University (which later merged with George Washington University) and received his degree in dental surgery in 1898. Although he

began practicing dentistry the same year, he continued his education in medicine and received his medical degree from the same institution the following year, 1899. In 1901 he studied under Dr. Alexander Duane at the New York Eye and Ear Infirmary. He began his general practice in the District of Columbia in 1902.

With Dr. Rosalind Moore Bain, a dentist, whom he married in 1900, he shared offices throughout his professional career, which continued until 1946, when they both retired and moved to Silver Spring. For 13 years they resided at 1301 Fairmont Street, N.W.; in 1939 they moved to 3223 Rittenhouse Street, N. W.

Dr. Bain's hobby was gardening, and he always maintained a flower garden, particularly roses. His home on Fairmont Street was surrounded by 125 rosebushes of 30 varieties and received much favorable comment.

In 1906 Dr. Bain joined both the Medical Association and the Medical Society of the District of Columbia; he became a Life member in 1947. He was a Fellow of the American Medical Association. He was also a member of the Chevy Chase Citizens' Association and the Takoma Horticultural Society. For several years he was Vice President of the Columbia Heights Citizens' Association.

His wife, Dr. Bain, is the only survivor.

Tendon Injuries—Tobin

(Continued from page 519)

Adequate enlargement of the initial skin wound should be made if necessary.

Definitive tendon suture should not be performed if wound contamination is present or even suspected.

Fine stainless steel wire is the suture material of choice.

Hands should be immobilized in a position of function.

It is preferable not to suture flexor tendons in the fingers.

Three weeks is the average time required for tendon healing.

Care should be used not to suture nerves to tendons. This admonition may seem unnecessary, but this procedure is occasionally observed.

Spontaneous ruptures of tendons are more difficult to repair than clean-cut severed tendons.

The use of a large piece of fascia lata in the repair of old, untreated ruptures of the heel cords is suggested.

BIBLIOGRAPHY

1. BUNNELL, S.: *Surgery of the Hand*, 2nd ed. Philadelphia: Lippincott, 1948.
2. KOCH, S. L.: Division of flexor tendons within digital sheath. *Surg., Gynec. & Obst.*, 1944, **78**, 9.
3. GEBHARD, U. E.: Repair of tendons by transfixion. *Indust. Med.*, 1944, **13**, 38.
4. LITTLER, J. W.: Free tendon grafts in secondary flexor tendon repair. *Am. J. Surg.*, 1947, **74**, 315.
5. MAY, H.: Tendon transplantation in hand. *Surg., Gynec. & Obst.*, 1946, **83**, 631.
6. BUNNELL, S.: Active splinting of hand. *J. Bone & Joint Surg.*, 1946, **28**, 732.
7. MASON, M.: Significance of function in tendon repair. *Arch. Phys. Therapy*, 1941, **22**, 28.
8. HOWARD, N. J.: New concept of tenosynovitis and pathology of physiologic effort. *Am. J. Surg.*, 1938, **42**, 723.
9. FLYNN, J. E.: Acute suppurative tenosynovitis of hand. *Surg., Gynec. & Obst.*, 1943, **76**, 227.
10. McLAUGHLIN, H. L.: Repair of ruptures through larger tendons by removable staple suture; preliminary report. *Arch. Surg.*, 1946, **52**, 547.

Carcinoma in Young Adults—Graham

(Continued from page 527)

participate in this Symposium on Cancer. It is an honor which I have not deserved, but which I accept with much pleasure, as well as with sincere modesty. Thank you for your kind attention, and for the great benefit which I have gained, personally, from this association with you tonight.

Cytologic Diagnosis of Malignant Lesions—Hunter

(Continued from *Cancer Bulletin*, page 16)

BIBLIOGRAPHY

1. PAPANICOLAOU, G. N.: New cancer diagnosis. *Proc. Third Race Betterment Conference*, 1928, p. 528.
2. PAPANICOLAOU, G. N.: New procedure for staining vaginal smears. *Science*, 1942, **95**, 438.

3. WOOLNER, L. B., AND McDONALD, J. R.: Carcinoma cells in sputum and bronchial secretions. *Surg., Gynec. & Obst.*, 1949, **88**, 273.
4. GRAHAM, R. M., ULFELDER, H., AND GREEN, T. H., JR.: Cytologic method as aid in diagnosis of gastric carcinoma. *Ibid.*, 1948, **86**, 257.
5. DAUT, R. V., AND McDONALD, J. R.: Diagnosis of malignant lesions of urinary tract by means of microscopic examination of centrifuged urinary sediment. *Proc. Staff Meet., Mayo Clin.*, 1947, **22**, 382.
6. PUND, E. R., NETTLES, J. B., DICK, F., JR., AND CARDWELL, E. S., JR.: Pathology of early carcinoma of cervix; status of preinvasive cancer. *South. M. J.*, 1948, **41**, 711.
7. HOWARD, L., ERICKSON, C. C., AND STODDARD, L.: Study of histogenesis of endocervical metaplasia and intra-epithelial carcinoma. Abstracted, *Am. J. Path.*, 1949, **25**, 794.
8. MORRIS, A. A.: Use of smear technic in rapid histological diagnosis of tumors of central nervous system; description of new staining method. *J. Neurosurg.*, 1947, **4**, 497.

Medical Controversy—Wiprud

(Continued from page 538)

An epilogue will follow Act III if either voluntary or compulsory health insurance legislation is enacted. Whatever the outcome, a very important chapter in American history will have been written when the curtain comes down for the last time.

Woman's Auxiliary Notes

(Continued from page 550)

Finance: Mrs. William J. B. Orr
 Social: Mrs. Francis O'Bryan
 Publicity: Mrs. G. Louis Weller, Jr.
 House: Mrs. Lawrence Rapee
 Public Relations: Mrs. Samuel Alexander
 Philanthropic: Mrs. Samuel Dodek
 Educational: Mrs. Jonathon Williams
 Hygeia: Mrs. James H. Scully

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Publicity Chairman

MEDICAL SOCIETIES WITH LIMITED MEMBERSHIP

WASHINGTON, D. C.

1949-1950

SOCIETY	PRESIDENT	SECRETARY	NO. MEET- INGS PER YEAR	DATE OF MEETINGS	PLACE OF MEETINGS
*Baltimore-Washington Dermatological	N. M. Kanof	H. Robinson, Jr., Baltimore	8	3rd Thursday	Alternating Cities
*Clinical Club of Washington	L. G. Lewis	H. S. Bernton	8	1st Tuesday	Army-Navy Club Town
*Clinico-Pathological	D. B. Moffett	T. Bradley	8	3rd Tuesday	Army-Navy Club Town
Diabetes Association of the District of Columbia	M. Protas	K. H. Mish	4	On Call	Medical Society Building
Georgetown Clinical	J. F. Belair	E. F. Daley	8	3rd Tuesday	Hotel 2400
Georgetown University Medical Alumni Club	R. T. Holden	O. B. Hunter, Jr.	4	Sept., Nov., Jan., March	
George Washington University	H. S. Gates	O. B. Hunter, Sr.	7	3rd Monday	1335 H Street, N.W.
Hippocrates-Galen	E. W. Davis	C. P. Ryland	5	1st Thursday Nov., Jan., Feb., March, April	
International Medical Club	A. B. Coulter	P. Constantinople		On Call	Mayflower Hotel
Jacobi	M. Greenberg	C. G. Aronstein	8	3rd Monday	Washington Hotel
Kober	W. P. Herbst	L. B. Norris	8	3rd Monday	Army-Navy Club Town
Mackall	J. L. Thompson	H. F. Kreuzburg	7	3rd Thursday	Kennedy-Warren
Medical Arts	J. K. Cromer	E. S. Caldemeyer	8	2nd Thursday	Kennedy-Warren
Osler	W. W. Boyd	W. M. Willett	8	3rd Monday	
*Pan American (D. C. Branch)	C. L. Hall	P. Martinez	4	On Call	
Physician-Veterans of World War II	O. B. Hunter, Jr.	E. J. McDonald	2	Dec. and March	Medical Society Building
Potomac Chapter, American College of Chest Physicians	E. W. Davis	M. B. Kress, Baltimore	1	April	Baltimore
Potomac Society of Anesthesiologists	E. B. Macon	J. B. Hoberman	4	On Call	Medical Society Building
*Reserve Officers Association, D. C. Medical Chapter	F. D. Suttentfield	W. K. Billingsley		On Call	Medical Society Building
Rheumatism	J. L. Thompson	D. C. Crain	3	On Call	Medical Society Building
St. Elizabeths Hospital	M. Kleinerman	N. Taub	3	Jan., April, Oct.	St. Elizabeths Hospital
*Washington Academy of Medicine	W. Overholser	E. C. Albritton	3	On Call	Roger Smith Hotel
Washington Academy of Surgery	A. Horwitz	R. L. Jackson	4	2nd Monday Oct., Dec., Feb., April	Mayflower Hotel
Washington Gynecological	G. Nordlinger	S. W. Hawken	5	4th Saturday Oct., Nov., Jan., March, May	Willard Hotel

*Election of new officers pending.

(Continued on next page)

MEDICAL SOCIETIES WITH LIMITED MEMBERSHIP—Continued

SOCIETY	PRESIDENT	SECRETARY	NO. MEET- INGS PER YEAR	DATE OF MEETINGS	PLACE OF MEETINGS
Washington Heart Association	J. R. Veal	B. Manchester		On Call	Association Headquarters
Washington Medical and Surgical	J. K. Cromer	W. O. Teichmann	6	4th Monday	Hotel 2400
Washington Ophthalmological	J. T. Schnebly	E. S. Caldemeyer	4	1st Monday Nov., Jan., March, May	Kennedy-Warren
Washington Orthopedic Club	M. C. Cobey	E. J. Gordon	7	2nd Monday	Medical Society Building
Washington Psychiatric	A. M. Duval	H. P. Laughlin	9	Scheduled	Medical Society Building
Washington Psychoanalytic	R. E. Buxton	R. A. Cohen	8	2nd Saturday	Medical Society Building
Washington Society for Advancement of Psychotherapy	L. E. Wexberg	B. Karpman	8	3rd Friday	
Washington Society of Pathologists	H. H. Leffler	H. L. Stewart	8	1st Saturday	Army Institute of Pathology
Washington Urological	H. D. Wolff	C. E. Bagley	6	Every 6 weeks	Doctors Hospital
Women's Medical	C. Jackson	J. E. Renshaw	8	1st Tuesday	Doctors Hospital

SECTIONS OF THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA
1949-1950

SECTION	CHAIRMAN	SECRETARY	NO. MEET- INGS PER YEAR	DATE OF MEETINGS	PLACE OF MEETINGS
Anesthesiology	D. Stubbs	J. B. Hoberman	3	4th Monday Jan., March, May	Medical Society Building
Dermatology and Syphilology	H. H. Hazen	N. M. Kanof	2	On Call	Medical Society Building
Gastroenterology	R. E. Dunkley	W. P. Baker	4	2nd Monday Nov., Jan., March, May	Homes
General Practice	R. L. Spire	H. S. Gates	8	4th Tuesday	Medical Society Building
Neurology and Psychiatry	H. Stevens	Z. M. Lebensohn	8	1st Thursday	Medical Society Building
Otolaryngology	D. S. Knowlton	I. Feldman	5	On Call	Army-Navy Town Club
Pathology and Laboratory Medicine	O. B. Hunter, Sr.	L. Neuman		On Call	Medical Society Building
Pediatrics	G. Maksim	J. E. Cassidy		On Call	Children's Hospital
Radiology	J. F. Belair	K. C. Corley	4	3rd Thursday Jan., March, May, Oct.	Medical Society Building

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THE USE OF CURARE IN OBSTETRICS*†

A Preliminary Report

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CURARE is an old drug, formerly popularized by fiction writers. Shortly after Columbus' discovery of America this arrow poison was described in writings of Europeans, who had contacts with the royal court of Spain.¹ Sir Walter Raleigh also refers to curare in his "Discovery of the Large, Rich and Beautiful Empire of Guiana" in 1595. The first physician to write of this American arrow poison was Nicolae Monandis, who compiled a book on *Materia Medica* of the New World. In 1938 Richard Gill brought back to the United States the first adequate supply of the drug. A. R. McIntyre at the University of Nebraska then subjected this supply of curare to the first pharmacologic study by modern methods. The first large scale test of the new curare on human subjects was made by A. E. Bennett,² also of the University of Nebraska, who

used it to soften the traumatic effects of convulsive shock therapy in psychiatric patients. With this pharmacologic and clinical evidence of the safety of the drug in humans, Griffith and Johnson³ in 1942 reported its use in general anesthesia. Whitacre and Fisher⁴ reported their observations in 100 cases of cesarean sections where curare was administered satisfactorily. They concluded that curare did not seem to exert a depressing effect on the baby; there was no effect on the uterus, and it definitely decreased the amount of inhalation anesthetic required.

This study of 100 consecutive private deliveries, in which curare was administered prior to the birth of the baby, was initiated early in 1947. One of the authors (H. K.), having heard the paper by Whitacre and Fisher⁴ on curare in cesarean sections, discussed with the other authors its possible expansion into the field of vaginal deliveries, and it was agreed to use curare in every obstetrical patient. Our work, which was then in progress, was mentioned by Macon and Bageant⁵ in their comprehensive report on

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†Presented before the Section on Anesthesiology of the Medical Society of the District of Columbia, May 26, 1949.

curare. This report is a preliminary one, in which the 100 consecutive cases are evaluated clinically as the basis for further detailed studies.

PHARMACOLOGY

The route of administration is usually intravenously, although intramuscular injection may be employed. Absorption from the skin is poor if at all, slow from the mucous membranes, and fairly rapid from the serous surfaces. Curare is destroyed in part by the liver and eliminated by the kidney, although some of the drug is excreted unchanged. The toxicity is chiefly in the failure of respiration because of peripheral paralysis of the diaphragm.

PHYSIOLOGY

Curarization can occur with little or no manifestation of hemodynamic disturbance. According to Harroun, Beckert and Fisher,⁶ in apneic doses of curare there is a slight rise in the blood pressure but no significant changes in the electrocardiogram. Liver function decreases slightly after operation but this may be due to many other things. There are no changes in the kidney, but the blood sugar rises about 13 per cent. McIntyre¹ states that curare has no effect on smooth muscle, contracts the spleen, and reduces the quantity of urine, but does not affect the body temperature. Action on the central nervous system, according to Smith,⁷ reveals that *d*-tubocurarine chloride has no significant central stimulant, depressant, or analgesic action inasmuch as no changes occur in the electroencephalogram, consciousness, or sensorium in his human test. Curare is known to cause complete paralysis of the skeletal muscles by inactivating acetylcholine and thus blocking the nerve impulses to the voluntary muscles. This paralysis, which begins with the muscles innervated by the cervical nerves, continues successively through the muscles of the extremities, the abdominal muscles, the intercostals, and finally the diaphragm. Curare does not pass through the placenta or paralyze the uterine musculature. According to Gray,⁸ there is an increased contractility of the

uterine musculature, and the injection of pituitrin was deemed unnecessary and has been abandoned.

ANATOMY OF THE PERINEUM

A brief review is necessary to evaluate the results of this study. A great musculofascial diaphragm forms the bottom of the abdomino-pelvic cavity and, in addition to providing for the support of the pelvic organs, is pierced by fenestra for the opening of the rectum and vagina and acts, in a great measure, as a sphincter for both of these canals.

The structures which make up this important diaphragm can be divided into 3 groups:

1. Those that line the lateral wall of the outlet. The muscles included in this group are the psoas, pyriformis and obturator internus.
2. Those that cross the pelvic outlet and enter into the formation of the pelvic diaphragm. In this group we find the levator ani, which constricts the lower end of the rectum and vagina, and the coccygeus.
3. Those that lie beneath the pelvic diaphragm. Herein are the sphincter ani in the posterior triangle, the compressor urethrae and transversus perinei profundus in the deep perineal compartment, and the ischiocavernosus, bulbocavernosus and transversus perinei superficialis in the superficial compartment.

This report concerns 100 consecutive private patients, of which 49 were primiparae, 35 gravida II, and 16 gravida III or more as outlined in

TABLE 1
Gravidity

Primiparae.....	49
Gravida II	35
Gravida III or more	16

table 1. The analgesia used during labor consisted of the administration of seconal orally, demerol intramuscularly, and/or sodium pentothal rectally.⁹ The anesthesia used for delivery was chiefly ethylene and oxygen with cyclopropane occasionally whenever necessary to obtain satisfactory anesthesia.

Since this study was preliminary in nature, a fixed dose of curare was given to each patient. In our earlier cases 2 c.c. (6 mg.) of *d*-tubocurarine was given intravenously. However, 3 c.c. (9 mg.) was given to the majority of the patients studied, because the smaller dose was inadequate. The average time interval between the administration of the curare and the actual delivery was 10 minutes.

The types of delivery are grouped according to low and mid forceps with Scanzoni rotation, breech extraction and cesarean sections, as outlined in table 2.

TABLE 2
Method of Delivery

Low forceps.....	86
Low forceps with Scanzoni.....	5
Mid forceps.....	1
Mid forceps with Scanzoni.....	2
Breech extractions.....	1
Cesarean sections.....	5

The obstetricians were impressed by the palpable perineal relaxation and attempted to do the minimum episiotomy in each case. This was done in order to avoid severing the superficial transverse perineal muscle. In the cases in which the obstetrician noted a shallow episiotomy not involving the muscles, we considered the curare to achieve a marked response. There were 22 midline episiotomies, 68 right mediolateral episiotomies, 4 first degree lacerations, and 1 case not requiring an episiotomy. The 5 cases of cesarean section complete the total of 100 cases studied here. Of these 90 episiotomies mentioned only 28 involved the transverse perineal muscles, leaving 62 with shallow episiotomies (table 3, A and B).

TABLE 3
Episiotomies

A. Type	
Midline.....	22
Right mediolateral.....	68
B. Extent of episiotomies	
Shallow.....	62
Involving muscles.....	28

The size of the baby was a factor in these cases; the largest baby weighed 9 lb., 1 oz., and the smallest, 5 lb. and 10 oz. All the patients were at term between 37 and 41 weeks. Postpartum bleeding was inconsequential, with the estimated blood loss averaging from 75 to 150 c.c. The postpartum complications consisted of 1 case of thrombophlebitis, 1 of cystitis, 1 of mastitis and 1 of infected episiotomy, not an unusual incidence in active practice.

The degree of relaxation attributed to the action of the curare was estimated by comparing the tension of the perineal muscles before and after the administration of the drug. When the anesthetized patient was being draped for delivery, a subjective evaluation of the perineal tone was made by palpation and the curare injected intravenously. After completion of the draping and catheterization of the patient, the muscle tone was again evaluated and the difference noted. This method is by no means an accurate one, since it depends solely on the judgment of the obstetrician, but it served as a guide for our preliminary study. Relaxation was judged and recorded as poor, fair, good and marked as indicated in table 4. Only 3 per cent were poor.

TABLE 4
Degree of Relaxation

Marked.....	68
Moderate.....	16
Fair.....	8
Poor.....	3

The results of the postpartum examinations 6 weeks after delivery were most amazing (table 5). Eighty-six per cent or 82 patients had very firm perineums, and 11.5 per cent had relaxed perineums and were considered failures. It might

TABLE 5
Postpartum Examination
(6 weeks)

Very firm.....	82
Moderately firm.....	2
Relaxed.....	11

be mentioned at this point that all patients with very firm perineums had small episiotomies and none had any perineal plastic repairs or modified types of perineorrhaphy.

No cases required inflation with oxygen or use of prostigmine to combat effects of curare or respiratory depression. The babies showed no effects of the drug and resuscitation times were comparable with resuscitation times in those babies whose mothers received the same analgesia but no curare.

A comparison of curare and spinal anesthesia has not been done because, in our practice, regional methods are used principally for prematurity in the baby and severe pulmonary infections in the mother.

TYPICAL CASE REPORTS

Mrs. D. F., a 26-year-old primipara, was admitted to Garfield Hospital, May 9, 1947 in active labor. Analgesia during the first stage of labor consisted of seconal by mouth and demerol intramuscularly. Examination at 2 a.m., May 10 revealed that the cervix was fully dilated and the patient ready for delivery. She was transported to the delivery room and general anesthesia (ethylene-oxygen) was induced at 2:05 a.m. The temperature was 98°F., the pulse rate 72, and the respiratory rate 20; the blood pressure was 112/70 and the hemoglobin 70 per cent. The perineum was very firm, and 6 mg. of *d*-tubocurarine was administered intravenously at 2:20 a.m. Relaxation was marked and a small right medial lateral episiotomy was performed, involving only the skin and fascia, the muscles being intact. An 8 lb. baby was delivered by low forceps at 2:27 a.m. with no difficulty in the resuscitation of the baby. The blood loss was 75 c.c., and there were no postpartum complications. The perineum was repaired and the anesthetic discontinued at 2:45 a.m. The blood pressure, pulse rate, and respiratory rate showed no change. Postpartum examination after 6 weeks revealed a very firm perineum.

Mrs. W. C., a 35-year-old primipara, was admitted, November 14, 1947 at 12:15 a.m. in active labor. Total analgesia consisted of seconal, 0.5 Gm., and demerol, 100 mg. The cervix was fully dilated at 2:30 a.m. with a frank breech presentation. Cyclopropane anesthesia was started at 2:40 a.m. Examination revealed a very firm perineum, and 9 milligrams of curare was given intra-

venously at 2:56 a.m. Marked perineal relaxation was noted, and a female infant was delivered at 3:08 a.m. by a decomposition of a frank breech and Piper forceps to the aftercoming head. A shallow, right mediolateral episiotomy was done prior to the breech extraction with no extension following delivery. There were no postpartum complications, and the 6-week examination revealed a very firm perineum. The course under anesthesia was uneventful with no appreciable effects upon the respiratory or circulatory systems.

CONCLUSIONS

Another field of usefulness of curare has been demonstrated in obstetrics. One hundred consecutive cases were studied, of which 49 were primiparae. Sixty-two of 90 episiotomies were shallow, not involving the transverse perinei. The results of the postpartum examinations were striking, with 86 per cent firm perineums. There were no harmful effects of the drug upon the babies or mothers, and there were no deaths from any cause in this series.

NOTE: Since the preparation of this report, there have been 300 additional obstetric cases in which we used curare as described herein. The results were similar.

BIBLIOGRAPHY

1. MCINTYRE, A. R.: Curare: Its History, Nature and Clinical Use. Chicago: Univ. Chicago Press, 1947.
2. BENNETT, A. E., MCINTYRE, A. R., AND BENNETT, A. L.: Pharmacologic and clinical investigations with crude curare. *J.A.M.A.*, 1940, **114**, 322.
3. GRIFFITH, H. R., AND JOHNSON, G. E.: Use of curare in general anesthesia. *Anesthesiology*, 1942, **3**, 418.
4. WHITACRE, R. J., AND FISHER, A. J.: Use of curare in anesthesia. *Anesthesiology*, 1945, **6**, 124.
5. MACON, E. B., AND BAGEANT, W. E.: Some clinical observations on use of curare in anesthesia. *M. Ann. District of Columbia*, 1947, **16**, 533.
6. HARROUN, P., BECKERT, F. E., AND FISHER, C. W.: Physiologic effects of curare and its use as adjunct to anesthesia. *Surg., Gynec. & Obst.*, 1947, **84**, 491.
7. SMITH, S. M., BROWN, H. O., TOMAN, J. E. P., AND GOODMAN, L. S.: Lack of cerebral effects of *d*-tubocurarine. *Anesthesiology*, 1947, **8**, 1.
8. GRAY, T. C.: *d*-Tubocurarine in caesarean section. *Brit. M. J.*, 1947, **1**, 444.
9. DODEK, S. M., AND KATZMAN, S.: Pentothal sodium as rectal analgesic during labor. *M. Ann. District of Columbia*, 1944, **13**, 325.

ABDOMINAL EPILEPSY*

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ALTHOUGH abdominal pain is very commonly encountered by the clinician, neurogenic causes are rarely considered in the differential diagnosis, and certainly association of the pain with epilepsy would seem particularly remote. Jackson, Bechterew, Wilson, and other older neurologists, however, recognized this clinical concatenation, and after Cushing's later demonstration of the relationship of cerebral trauma to gastrointestinal dysfunction and pain¹ further interest in this problem was stimulated. We are indebted to Moore²⁻⁶ for the more recent elucidation of abdominal epilepsy and for its clinical definition. He has described this syndrome as "characterized by bouts of paroxysmal abdominal pain, the latter being due to hypermobility of the bowel, provoked by abnormal discharges of certain neurons in the vicinity of biochemically or structurally altered cerebral tissues, presumably situated in the pre-motor and post-motor cerebral cortex and/or the diencephalon."³

The data which I wish to present suggest that abdominal epilepsy is not rare, as was formerly believed, but is probably often overlooked. Over a period of 6 years, 12 instances of this syndrome were collected from patients seen at the District of Columbia Department of Health Crippled Children's Clinic and from the Group Health Clinic of Washington. These 12 cases are characterized by:

1. Periodic abdominal pain occurring suddenly, lasting for a brief period from a few sec-

onds to a few hours, most often but a few minutes, and usually not associated with nausea, vomiting, or fever. These attacks are not due to any dietary indiscretion or to any known psychogenic factor.

2. Coexisting convulsive disorder, either grand mal, petit mal, or psychomotor attacks. The episodes of abdominal pain occurred with far greater frequency than the above types of convulsive seizures, and usually independently.

3. Abnormal electroencephalogram.

4. Response to anticonvulsive therapy of both the convulsive phenomenon and the periodic abdominal pain.

In none of these cases was the abdominal pain previously diagnosed as abdominal epilepsy. As previously stated, the condition is probably often unrecognized, and often the patient is subjected to elaborate investigations of the gastrointestinal tract. One patient in this series suffered one of many periodic attacks which was diagnosed as appendicitis. A normal appendix was removed and the diagnosis was changed postoperatively to colitis. The patient is under anticonvulsive therapy and has had no convulsive seizures and no abdominal pain. One other patient was similarly diagnosed and was hospitalized, but the resolution of the pain was sufficiently expeditious to stay the eager hand of the surgeon. The patient was discharged the following day and is currently free of abdominal pain and of convulsive seizures on conventional anticonvulsive therapy.

Abdominal pain and various sensory experiences referred to the abdomen are common aura in epilepsy, and in this series of patients some of the convulsive seizures were preceded by abdominal pain; some patients had convulsive seizures not associated with abdominal sensory experience, and most of the patients' abdominal

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pain was independent of convulsive attacks. In contrast to the cases recorded by Moore, and similar to those reported by Klingman,⁷ these 12 patients were all children with ages ranging from 3 to 15. One adult was observed to have this syndrome. He was not included in this series because there has not been adequate opportunity for observation. Most of these patients have been followed for $2\frac{1}{2}$ or more years and have been under close pediatric as well as neurologic surveillance. Four have had glucose tolerance tests, and all were negative.

A representative case is that of P. B., a 5-year-old girl, delivered after prolonged and difficult labor as a 7-month premature infant. The mother noted that the right lower extremity was larger than the left in the first year. At 13 months of age she had her first spell characterized by brief unconsciousness and a year later had her first attack of severe abdominal pain associated with a "blank" spell that lasted several minutes. She had periodic abdominal pain from then on, sudden in onset, sudden in remission, and usually lasting 5 or 10 minutes but sometimes lasting only a few seconds. On one occasion she was awakened from sleep by this pain. The electroencephalogram was abnormal. Prior to treatment she had frequent periodic grand mal and petit mal attacks, most of which continued until medication was satisfactorily adjusted. Convulsive seizures and abdominal pain diminished rapidly under medication. After the patient was free of symptoms she was removed from medication for 1 month, during which the convulsive disorders and abdominal pain reappeared. The patient was placed on anticonvulsive drugs again and had had no seizures for 6 months with the exception of 1 attack of abdominal pain and petit mal seizure, each occurring individually. However, in February, 1949 the patient began taking the anticonvulsive drug in a capricious manner and several petit mal seizures reappeared. In addition, independent and frequent abdominal pains returned, always associated with visible

and palpable "lumps" on the abdomen which, according to the mother, "slowly moved downward and across the belly." Following each paroxysm of abdominal pain, which usually lasted several minutes, the patient became pale, somnolent and usually went to sleep for about 2 hours. With restitution of regular medication, all symptoms disappeared.

In 14 cases reported by Moore,⁶ 50 per cent had organic disease, and the same proportion obtained in this series. An attempt was made to correlate the symptoms of abdominal epilepsy with a cerebral focus as determined by the electroencephalogram and/or by the clinical examination (see fig. 1). Five of the 6 had evidence of a frontal lobe lesion, but no inference could be

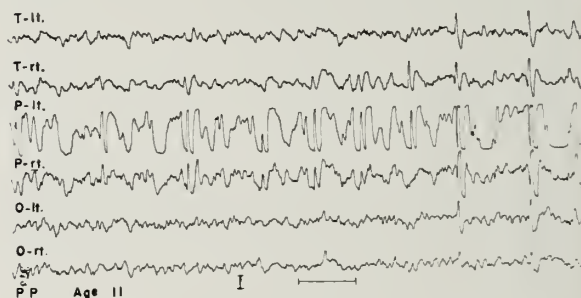


FIG. 1. EEG showing a left parietal focus, due to porencephaly, in a girl with abdominal epilepsy.

drawn regarding the possible cerebral site of abdominal epilepsy. This question of the area involved in gastrointestinal pain or dysfunction has been investigated experimentally since 1866 by Rokitsansky and Bochefontaine.⁸ According to Penfield,^{9, 10} it is difficult to localize abdominal pain or epigastric aura, and Wechsler¹¹ concurs in this opinion. However, Fulton⁸ states that there is a large body of evidence indicating that a frontal lobe lesion, especially when bilateral, causes disturbances of motility and possibly also of secretion of the gastrointestinal tract. Watts and Fulton¹² have described three instances in which monkeys developed intussusception with fatal obstruction following bilateral ablations of the frontal lobe. When intussusception does not occur, such animals are found to become rav-

enously hungry, eating an abnormal quantity of food and sometimes passing undigested food in the feces. Prefrontal lobotomy in man is frequently followed by bulimia and marked weight gain.^{13, 14} Morbid hunger had been observed as a symptom of brain tumor, and Levin¹⁵ has described a syndrome in children consisting of periodic attacks of morbid hunger associated with somnolence which he attributed to derangement of corticothalamic pathway. It has been shown that by stimulation of the tuber cinereum, increased peristalsis of the stomach can be produced, and with stimulation of the posterior part of the hypothalamus all gastric motility can be arrested.^{16, 17} Section of the vagus nerves abolished these affects. Cushing¹ concluded from his animal studies that an experimental lesion anywhere in the intracranial course of tracts leading from the anterior hypothalamus to the vagal centers could cause gastrointestinal spasms and ulceration and perforation of the stomach.

The clinical implications of these and earlier studies have been developed by the classical works of Watts and Frazier,^{18, 19} who found that the gastrointestinal aura which occurred in cases of abdominal epilepsy coincides with vigorous and abnormal gastrointestinal movements. According to Fulton⁸ the existence within the cerebral cortex of gastrointestinal representation thus gives a rational basis not only for the gastrointestinal phenomenon of epilepsy "but also for the large number of gastrointestinal disturbances known to accompany states of anxiety, unusual mental activity, etc."

A curious correlation between brain lesions and gastrointestinal activity is demonstrated by the case of a 12-year-old patient. This child was delivered by forceps after 36 hours of labor and had difficulty breathing. She apparently developed normally until the age of 8, when, after an attack of the flu, she had a fainting spell which lasted about 15 minutes associated with rigidity of the body and rolling back of the eyes. From then on she had multiple grand mal and petit mal attacks and intermittent abdominal pain. A

pneumoencephalogram in April, 1946 showed markedly dilated ventricles, and the electroencephalogram was abnormal. A few months after the onset of epilepsy the patient developed constipation and began passing huge stools that required disintegration in order to prevent obstruction of the plumbing. A diagnosis of megacolon has been made. The coexistence of epilepsy, dilated ventricles, and Hirschsprung's disease was recorded by Watts and Uhle²⁰ in a patient with this combination with the inference that the Hirschsprung's disease represents a neurogenic defect. Only a few similar cases of megacolon with dilated cerebral ventricles have been reported,²¹ and the data are not sufficiently adequate to determine a direct causal relationship, but disturbances in higher autonomic centers have been suggested as the primary basis for the megacolon.²²

It should not be inferred from the above data that periodic abdominal pain in children is usually an epileptic equivalent. As a matter of fact, this condition would represent a very small segment of children with periodic abdominal pain, and other causes for such pain were considered in the differential diagnosis. For example, 2 patients were thought to have sickle-cell anemia and to be suffering from hemolytic crises, but the blood showed no sickling. Several of the patients have been labeled by pediatricians as having "navel colic." Other diagnoses have been considered, including mesenteric adenitis and hypoglycemia. Two patients were observed at menarche with the development of periodic pain which suggested the possibility of menstrual cramps and on several occasions mittelschmerz. In this connection it should be emphasized that epileptic phenomena often are precipitated by the cyclic physiologic changes of the menses. Differentiation in these latter 2 patients was difficult and uncertain.

A common cause of unexplained periodic abdominal pain in children is some functional factor,²³ but this can be superimposed on the syndrome of abdominal epilepsy and should be

segregated from it. The coexistence of psychologically traumatic events in the patient's history does not necessarily warrant the dangerous diagnosis of functional abdominal pain. For example, a patient, J. M., suffered a typical grand mal at the age of $4\frac{1}{2}$ years. A pneumoencephalogram performed at the age of 9 years was normal, and following this the seizures stopped but the patient developed night terrors and apparently fugue states. At that time the patient was seen by a psychologist who administered a Rorschach test which was interpreted as "not falling into the pattern of epilepsy," and the child was advised to undertake psychotherapy for his complaints. This recommendation was followed, but when the seizures became frequent with discontinuance of the drug therapy, the child was referred back for anticonvulsive therapy. Another patient, a 14-year-old boy, was seen because of enuresis; but a careful history revealed intermittent peculiar feelings of elation referred to the abdomen. The patient felt that this feeling of ecstasy was extremely pleasurable but also bizarre and he was relieved when the attack subsided. An electroencephalogram was abnormal. The patient has been placed on anticonvulsive therapy and was rendered free of these abdominal seizures.

The treatment of abdominal epilepsy is the same as that employed in other convulsive states, with the necessary emphasis on the psychiatric aspect as has been stressed elsewhere.²⁴ In addition to the threat and demoralization of classical epileptic seizures, the prospect of periodic abdominal pain may further intimidate the patient. In almost all of the patients in this series response of the convulsions to the drugs paralleled diminution of the abdominal pain, but in 1 case the institution of anticonvulsive therapy was associated with the actual provocation of periodic abdominal pain very similar to that seen when drug therapy is instituted or changed in other forms of convulsive seizures. However, with adjustment of the dosage level and combination of drugs it is usually possible to greatly reduce and often simultaneously eliminate both the conven-

tional seizures and periodic abdominal pain. In 4 patients mesantoin caused marked cervical lymphadenopathy and leukopenia, suggesting that associated mesenteric lymphadenopathy might be a causative factor in the abdominal pain. This possibility has been ruled out.

In summary, the syndrome of abdominal epilepsy has been described and possible anatomic bases enumerated. This syndrome is characterized by the sudden onset and brief duration of abdominal pain occurring in a patient with a known convulsive disorder and abnormal electroencephalogram, with both the periodic abdominal pain and the seizures responding to anticonvulsive drugs. The attacks of abdominal pain occur in far greater frequency than the convulsive seizures. The diagnosis can readily be made by means of a careful history and an electroencephalogram. Half of the twelve reported cases were associated with organic brain disease.

BIBLIOGRAPHY

1. CUSHING, H.: *Surg., Gynec. & Obst.*, 1932, **55**, 1.
2. Editorial: *J.A.M.A.*, 1948, **137**, 1042.
3. MOORE, M. T.: *Am. J. Surg.*, 1946, **72**, 883.
4. MOORE, M. T.: *South. Med. & Surg.*, 1946, **108**, 135.
5. MOORE, M. T.: *Pennsylvania M. J.*, 1945, **48**, 559.
6. MOORE, M. T.: *J.A.M.A.*, 1944, **124**, 561; 1945, **129**, 1233.
7. KLINGMAN, W. O., LANGFORD, W. S., GREELY, D. M., AND HOEFER, P.: *Tr. Am. Neurol. A.*, 1941, **67**, 228.
8. FULTON, J. F.: *Physiology of the Nervous System*, 2nd ed. New York: Oxford, 1943.
9. PENFIELD, W., AND GAGE, L.: *Arch. Neurol. & Psychiat.*, 1933, **30**, 709.
10. PENFIELD, W., AND ERICKSON, T. C.: *Epilepsy and Cerebral Localization*. Springfield, Ill.: Thomas, 1941.
11. WECHSLER, I. S.: *J.A.M.A.*, 1935, **105**, 647.
12. WATTS, J. W., AND FULTON, J. F.: *New England J. Med.*, 1934, **210**, 883.
13. FREEMAN, W., AND WATTS, J. W.: *Psychosurgery*. Springfield, Ill.: Thomas, 1942.
14. STEVENS, H., AND MOSOVICH, A.: *Am. J. Psychiat.*, 1947, **104**, 73.
15. LEVIN, M.: *Brain*, 1936, **59**, 494.
16. BEATTIE, J., AND SHEEHAN, D.: *J. Physiol.*, 1934, **81**, 218.
17. METTLER, F. A., SPINDER, J., METTLER, C. C., AND COMBS, J. D.: *Arch. Surg.*, 1936, **32**, 618.
18. WATTS, J. W.: *J.A.M.A.*, 1935, **104**, 355.
19. WATTS, J. W., AND FRAZIER, C. H.: *J. Nerv. & Ment. Dis.*, 1935, **81**, 168.

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ELECTROCARDIOGRAPHIC CHANGES IN ACUTE APPENDICITIS

Report of a Case

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THE development of electrocardiographic abnormalities during the course of acute or chronic abdominal disease has been noted many times, as has been the reversal of these changes following correction of the abdominal pathology. Changes have been reported in gallbladder disease,^{1, 2, 3} perforated gastric ulcer,^{4, 5} acute hemorrhage from the stomach and intestines,^{4, 6} pneumoperitoneum,⁷ uncomplicated peptic ulcer,⁸ and acute pancreatitis.⁹ A review of the literature, however, fails to reveal any report of electrocardiographic changes in acute appendicitis. In the case here presented, both the clinical course and the electrocardiogram confused the picture and delayed the making of the correct diagnosis.

REPORT OF CASE

The patient was a 63-year-old white woman who was seen on May 21, 1948 at 3:45 a.m. She had been feeling well until 4 hours before, when she suddenly developed epigastric pain, which became very severe and radiated to the umbilicus. She felt desire for stool but was unable to pass gas or feces and on her way back to bed became dizzy and fell twice but did not lose consciousness. She had considerable nausea but could not vomit.

When she was seen her temperature was 98.6°F, the pulse rate was 80, and the blood pressure was 110/80. She was pale but not cyanotic. The heart and lungs showed no abnormalities, and the pulse was regular and of good volume. There was slight tenderness in the mid-line of the abdomen from the xyphoid to the umbilicus, but no other abdominal tenderness. There was no rigidity

and no organs or masses were palpable. The physical examination otherwise revealed no further abnormalities.

She was admitted to Garfield Hospital with a tentative diagnosis of coronary occlusion. There a blood count showed a hemoglobin level of 13 Gm. per 100 c.c. of blood. The erythrocytes numbered 4,000,000 and the leukocytes 16,000, of which 80 per cent were segmented cells, 6 per cent band forms, and 14 per cent lymphocytes. The corrected erythrocyte sedimentation rate was 13 mm. in 1 hour (normal for the method used), and the blood sugar was 163 mg. per cent. The serum amylase level was 60 units (normal for the method used is 20 to 40). The prothrombin level was 40 per cent of normal, and the urine was normal.

An electrocardiogram taken during the day showed sinus rhythm with occasional premature contractions, a rate of 65, no axis deviation, normal P waves, a small Q wave in lead 2, and T waves inverted in all leads except lead 3. The ST segments were on reference levels (fig. 1).

About 4 p.m. of the same day the patient stated that her pain had moved to the right lower quadrant of the abdomen, and upon reexamination she was found to have tenderness, rebound tenderness, and referred tenderness in the same area. A soft systolic murmur was heard at the apex, and the blood pressure was then 100/60. A leukocyte count taken about the same time was 19,000.

The diagnosis of acute appendicitis was then made, and under cyclopropane and oxygen anesthesia a modified McBurney's incision was made. A large amount of cloudy fluid was found with a fixed retrocecal gangrenous appendix. The appendix was removed, the wound was closed with drainage, and the patient returned to her room in satisfactory condition.

Her convalescence was complicated by a slight atelectasis at the right lung base and by an incisional abscess, but she made a good recovery. On June 11 the wound was reopened down to the sheath of the external oblique mus-

cle and packed, and by July 19 the wound was well healed.

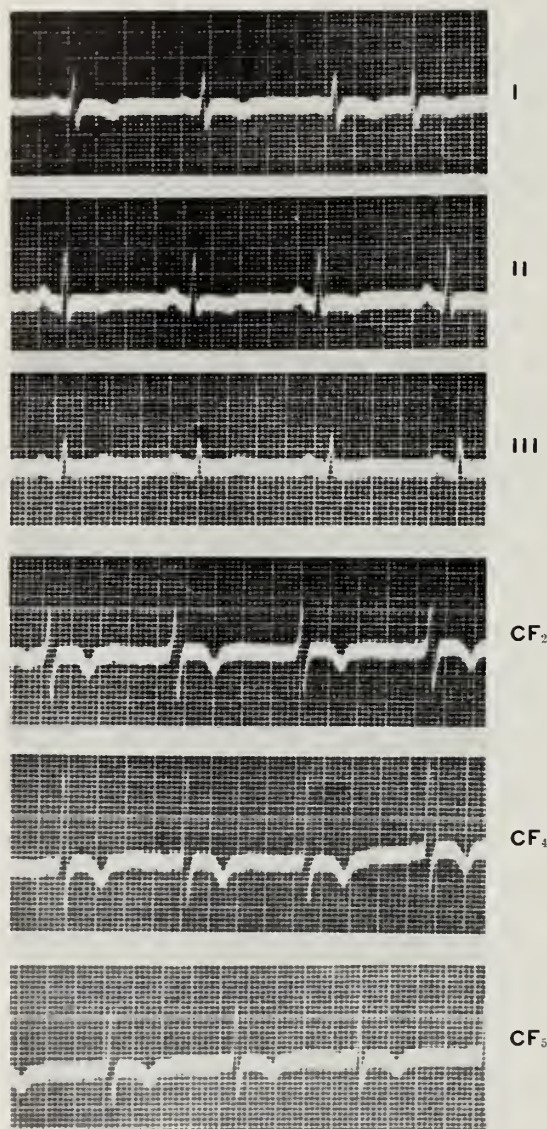


FIG. 1. Leads 1, 2, 3, CF₂, CF₄ and CF₅ from above down, preoperatively.

On May 24 (about 30 hours postoperatively) an electrocardiogram showed low T waves in leads 1 and 2, inverted in CF₂ and diphasic in CF₄ and CF₅ (fig. 2). On June 29 the tracing showed the T waves to be upright in leads 1, 2, CF₅, and CF₇, but low in leads 3 and CF₃ (fig. 3).

COMMENT

Although the patient had previously shown a slight narrowing of the retinal arteries and some palpable stiffening of the brachial vessels, she had never had symptoms referable to her cardio-

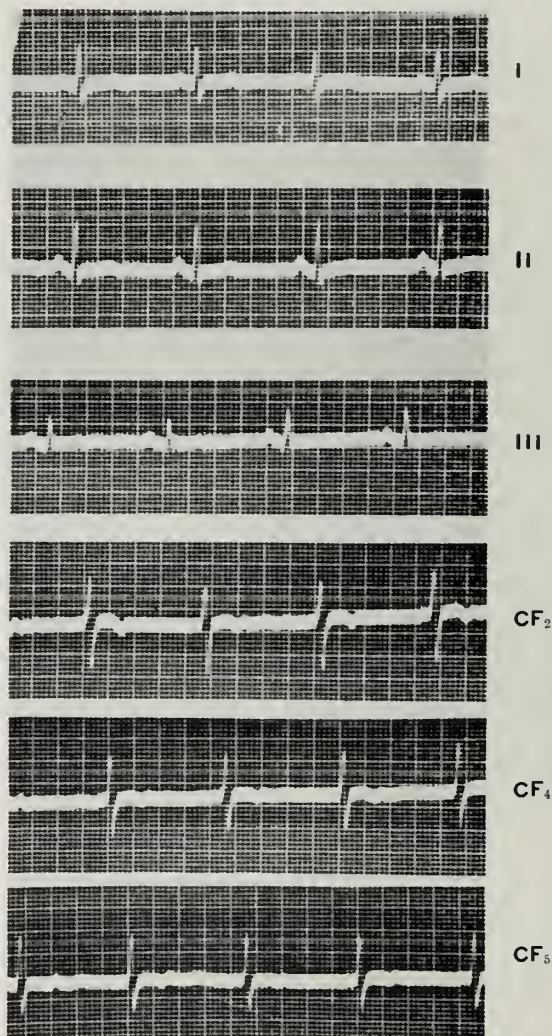


FIG. 2. Leads 1, 2, 3, CF₂, CF₄ and CF₅ from above down, 30 hours postoperatively.

vascular system and had not previously had an electrocardiogram made, so that there was no standard by which to compare the records taken during the illness herein described. The return of the T waves to within normal limits so

promptly after the removal of the gangrenous appendix makes the supposition probable that the changes were induced by the abdominal condition.

Several theories have been advanced to explain the production of electrocardiographic changes in extracardiac conditions. Murphy and Livezey⁵ suggested that in patients with arterio-

Rasmussen and Foss,⁶ on the other hand, suggested that in acute anemia myocardial anoxemia is the result of coronary spasm as a part of the general spasm of arterioles and arteries resulting from reduction in blood volume. There was, however, no evidence of reduced blood volume in this patient.

Orning and his co-workers⁸ believed that vagotonia was responsible for the electrocardiographic changes occurring in uncomplicated gastric ulcers. This patient had a slow pulse, although she had no other evidence of vagotonia.

Gold and his group¹¹ reported that severe pain artificially induced in the arm or head alters the T waves in patients with or without organic heart disease, and it appears likely that in this patient the pain of the abdominal disease may have produced sufficient reflex narrowing of the coronary arteries to have resulted in the electrocardiographic aberrations.

SUMMARY

A case is reported in which during the course of acute gangrenous appendicitis marked changes in the electrocardiogram occurred and which were reversed within 48 hours after operation. No similar report was found in an extensive review of the literature. Possible causes for these changes are briefly discussed.

BIBLIOGRAPHY

1. BREITWIESER, E. R.: Electrocardiographic observations in chronic cholecystitis before and after surgery. *Am. J. M. Sc.*, 1947, **213**, 598.
2. GUBNER, R. S.: Electrocardiographic changes in abdominal disease. *J.A.M.A.*, 1944, **124**, 122.
3. MOSCHOWITZ, E.: Electrocardiogram in uncomplicated disease of gall bladder and changes induced by operation. *J. Mt. Sinai Hosp.*, 1944, **10**, 632.
4. SENSENBACH, W.: Some common conditions, not due to primary heart disease that may be associated with changes in electrocardiogram. *Ann. Int. Med.*, 1946, **25**, 632.
5. MURPHY, F. D., AND LIVEZEY, M. M.: Electrocardiographic changes simulating those of acute myocardial infarction in case of perforated gastric ulcer. *Am. Heart J.*, 1944, **28**, 533.

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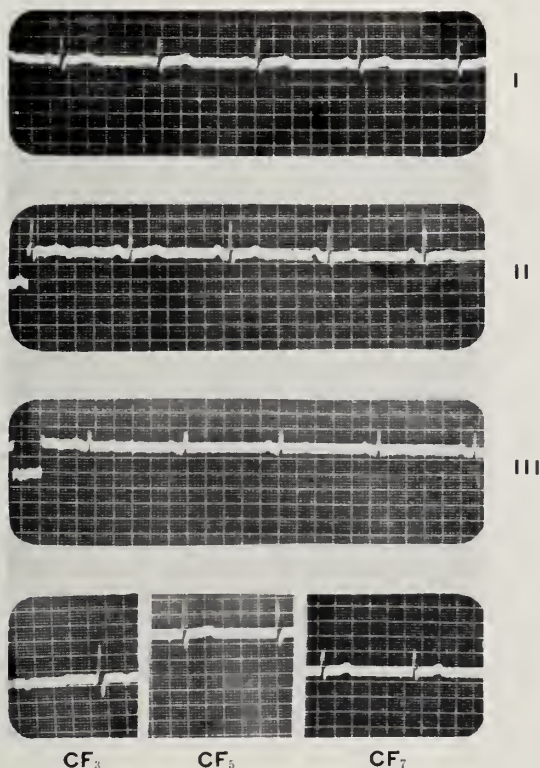


FIG. 3. Leads 1, 2 and 3 from above down, and leads CF₃, CF₅ and CF₇ below from left to right, 36 days post-operatively.

sclerotic narrowing of the coronary arteries the lowered blood pressure induced by acute abdominal disease produced a deficient blood supply to the myocardium and that the resultant anoxemia of the heart muscle caused the electrographic changes. Our patient, however, had her blood pressure recorded many times and on no occasion had a higher reading than 124/80 been noted. The systolic pressure had ranged from 100 to 124 and the diastolic pressure from 76 to 80; therefore there was only a moderate fall during this illness.

ERYTHEMA NODOSUM IN AN EIGHTEEN-MONTH-OLD INFANT WHICH LED TO THE DISCOVERY OF MODERATELY ADVANCED TUBERCULOSIS IN THE MOTHER

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THE following case is reported in order to illustrate the importance of searching for tuberculous contacts in all cases of erythema nodosum. The clinical manifestations of this entity are probably the reactions of a sensitized individual to a wide variety of sensitizing or antigenic substances.¹ These sensitizing agents may be bacterial, toxic, or chemical.^{1, 2} The most frequently encountered agent is the tuberculo-protein of the tubercle bacillus, as evidenced by the finding of coëxisting tuberculosis (diagnosed by chest roentgenograms and/or tuberculin skin tests) in the majority of cases reported.¹⁻⁴ Other causative agents recorded in the literature are streptococcal infections, drug intoxications (sulfonamides, iodides, bromides, etc.), coccidioidomycosis, lymphopathia venereum, gonorrhea, and syphilis.

REPORT OF CASE

G. P., an 18-month-old white female, was first seen on January 3, 1949 because of a high fever and "red bumps" on her legs of 24 hours' duration. She had apparently been perfectly well until 48 hours previously when she developed a "running" nose and cough, vomited 3 times, and refused all solid foods. The "bumps" on her legs were painful and tender to the touch.

She was born in Washington, D.C. on July 6, 1947 and was the result of a full-term pregnancy which terminated in a normal spontaneous delivery. There were no neonatal complications. The entire 18 months of her life were spent with her father and mother in Washington. The dietary and vitamin intake had been adequate, and her mental and physical growth and development had

progressed according to normal standard patterns. There had been no previous illnesses, medications, operations, or injuries, and no immunizations had been performed.

Her father and mother were living and apparently well, although her mother complained of a "mild cigarette cough." The mother was 21 years of age and prior to the patient's birth had lived in the household of a father-in-law by a previous marriage. The father-in-law had since died of tuberculosis. Venereal disease was denied. There were no siblings living or dead.

Physical examination disclosed a well developed infant appearing acutely ill with a temperature of 102.6° F. A mild rhinitis was present; the tonsils were hypertrophied and inflamed; the throat was reddened, and the submaxillary and cervical lymph nodes were palpably enlarged and tender. Numerous large, tender erythematous nodules measuring up to 1.5 cm. in diameter were present in the subcutaneous tissue overlying the anterior aspect of the tibiae and fibulae. There were also 2 similar lesions 6 mm. in diameter on the right cheek about 2 cm. inferior to the outer canthus of the eye. The inguinal lymph nodes were palpably enlarged and tender bilaterally.

Procaine penicillin in sesame oil with aluminum monostearate (300,000 units) was administered intramuscularly, symptomatic therapy was instituted, and a tuberculin patch test applied.

The temperature ranged from 101° to 101.8° F. for the next 5 days, after which it returned to normal. On the second day of observation the forehead became diffusely erythematous and the eyelids somewhat edematous. A urinalysis performed at that time was normal. All evidence of involvement of the face had subsided by the third day. Penicillin as described previously was repeated on the second and fourth days. The tuberculin patch test was markedly positive by the fourth day, disclosing numerous vesicles overlying eczematoid areas.

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PRIMARY CARCINOMA OF THE LIVER*

Report of Two Cases

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PRIMARY carcinoma of the liver is an uncommon but important autopsy finding. Numerous statistical surveys attest to this fact. The over-all average incidence in autopsy material is 0.506 per cent.¹ It is a well known fact that there is a geographical and racial variation in the incidence of primary carcinoma of the liver. According to Hoyne and Kernohan² there is an incidence of 0.227 per cent among the white-skinned races of Europe and America and an incidence of 0.983 per cent among the Asiatic and African races. Other surveys show an even higher percentage in the latter races.³⁻⁶ The following 2 cases are reported because of their interesting clinicopathologic findings and to re-emphasize the frequency with which primary carcinoma of the liver is associated with preëxisting cirrhosis.

REPORT OF CASES

Case 1. A 58-year-old colored male was admitted to Gallinger Municipal Hospital on February 3, 1949 with dyspnea and ascites of 2 weeks' duration. The present illness began 1 year prior to admission with progressive weakness, fatigue, anorexia, and a 65-pound loss of weight. Intermittent episodes of abdominal enlargement have been present during this period but have usually regressed. The past history revealed a 5-year existence of hypertension and 10 years of alcoholism. On admission the patient appeared chronically ill and emaciated. The pertinent physical findings were mild hypertension, ascites, enlargement of the superficial abdominal veins, a palpable liver edge 3 cm. below the right costal margin,

and pitting edema of the lower extremities. The admitting impression was portal cirrhosis. The pertinent laboratory data were: thymol turbidity, 4.6 units; cephalin flocculation, 3+ in 48 hours; total protein, 5.67 mg. per 100 ml. with an albumin-globulin ratio of 0.9 to 1; a brom-sulfalein test showing 17 per cent retention at the end of 45 minutes; an icterus index varying between 6 and 20; and a total bilirubin of 1 mg. per 100 ml. A roentgenogram of the chest showed elevation of the right leaf of the diaphragm, but an upper gastrointestinal X-ray examination was negative. On several occasions paracentesis



FIG. 1. Case 1. Tumor nodules, the result of intrahepatic metastasis, protruding from a cirrhotic liver.

yielded bloody ascitic fluid negative for malignant cells. Despite supportive measures the patient pursued a downhill course and expired on the 56th hospital day.

At autopsy an orange-sized mass eroding the vertebral aspect of the 11th left rib was found. The peritoneal cavity contained approximately 3,000 c.c. of blood-tinged fluid. The liver weighed 2,600 Gm. and was studded with white nodules varying in size from 0.5 cm. to 3 cm. protruding from a fibrotic surface (figure 1). On cut section an irregular, greenish-colored, soft mass 5 cm. in diameter was found in the right lobe of the liver. The spleen showed a firm white nodule 1 cm. in diameter

* Prepared while authors were Fellows in Pathology at Georgetown University School of Medicine, Washington, D. C.

in its upper pole. Microscopic examination of the liver revealed islands of regenerating liver lobules dispersed among dense trabeculae of fibrous tissue. There were also islands of neoplastic cells showing an abortive attempt to arrange themselves into cords and having a remarkable resemblance to the cords of regenerating liver cells (figure 2). The lesion in the rib and spleen showed masses of cells resembling the regenerating liver cells more than the

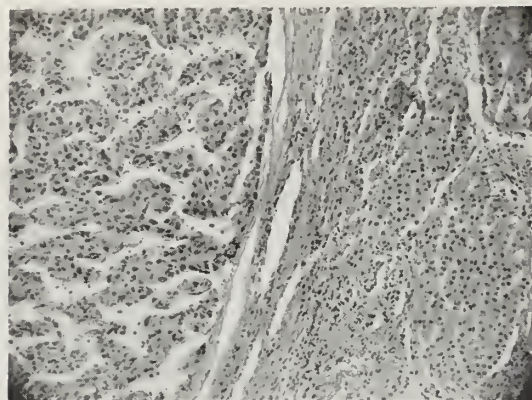


FIG. 2. Case 1. Photomicrograph showing fibrosis, hepatocellular carcinoma and hyperplasia $\times 100$.

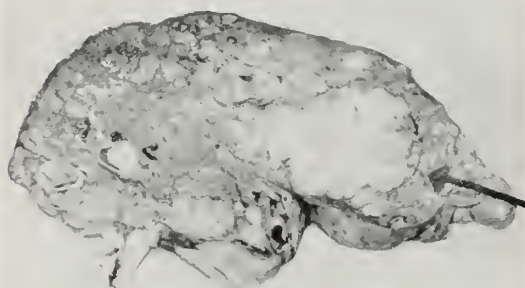


FIG. 3. Case 2. Cut section of liver showing tumor nodule with adjacent areas of intrahepatic metastasis in portal cirrhosis.

neoplastic cells. The primary pathologic diagnosis was hepatocellular carcinoma and portal cirrhosis.

Case 2. A 62-year-old white woman was admitted to Georgetown University Hospital on March 22, 1949 for recurrent ascites. This was the third hospital admission in a period of 2 months for similar complaints. Ascites was first noticed in the summer of 1948. The past history revealed a heavy alcoholic intake for many years. Physical examination on admission revealed dilated superficial facial veins, mild hypertension, mild cardiomegaly to the left, harsh, blowing apical and aortic systolic murmurs

graded 2, ascites, with a prominent superficial abdominal venous pattern, palmar erythema, and mild pretibial and ankle edema. A barium swallow on a previous hospital admission revealed the presence of esophageal varices. Repeated paracenteses yielded straw-colored fluid, negative on all occasions for malignant cells. The diagnosis was decompensated portal cirrhosis. On the third hospital day the patient developed hematemesis and melena which was controlled slowly. Despite intensive supportive measures the patient's course was progressively downhill, and she expired on the 36th hospital day. The pertinent laboratory data were: mild iron deficiency anemia, 4+ cephalin flocculation test in 48 hours, 48 per cent retention of dye with the bromsulfalein test, icterus index of 15, negative serology, total serum proteins of 6.6 mg. per 100 c.c. with 2.5 mg. albumin and 4.1 mg. globulin, and prothrombin content of 16 per cent.

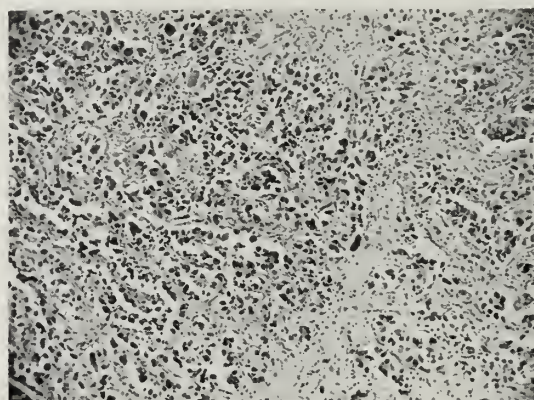


FIG. 4. Case 2. Photomicrograph showing primitive ductal structures characteristic of cholangiocellular carcinoma $\times 100$.

At autopsy the lungs showed gross and microscopic evidence of pulmonary congestion, edema, and bronchopneumonia. The mitral and aortic valves showed slight calcific changes. Esophageal varices were prominent. The peritoneal cavity contained 500 c.c. of a straw-colored fluid. The spleen was enlarged. The liver weighed 1,200 Gm., was grossly shrunken, markedly firm, and hobnail in appearance. In the central portion of the liver there was a firm, yellowish nodule which measured 4 cm. in greatest diameter and presented irregular borders which extended into the surrounding liver parenchyma (figure 3). Microscopic examination of the liver showed compression of the hepatic lobules by dense bands of fibrous tissue with scattered areas of regeneration. Sections through the gross nodule showed nests of neoplastic cells, some of which were multinucleated and in areas showed an abortive attempt to form ductal structures (figure 4). The primary pathologic diagnosis was cholangiocellular carcinoma and portal cirrhosis.

DISCUSSION

These cases illustrate that there is no striking clinical picture of primary carcinoma of the liver. Nevertheless, recent reports have emphasized certain clinical features. Although it is true that the older age groups are more commonly involved, no age group is exempt, as demonstrated by several recent reports of this finding in young children.^{7, 8} In general, a suspicion of primary carcinoma of the liver should be entertained in cases of a rapidly progressive cirrhosis of the liver.⁹ Abdominal pain, usually dull and epigastric, is frequently the most important symptom.^{10, 11} Other symptoms and signs found frequently are weight loss, mild jaundice, and ascites.¹² By far the commonest finding on physical examination of the patient is enlargement of the liver. In fact, Spatt and Grayzel¹³ have emphasized the importance of a rapidly enlarging abdominal mass in diagnosis. Liver function tests as a rule are disappointing as a method of differentiating between hepatic cirrhosis and a complicating carcinoma in a cirrhotic liver. They show only the impaired function of the liver usually associated with the underlying portal cirrhosis. However, the alkaline serum phosphatase may be significantly elevated in primary carcinoma of the liver. This is a valuable diagnostic aid if obstructive liver disease, metastatic bone lesions, and other pathologic bone conditions such as Paget's disease can be ruled out.^{14, 15} Schatzki¹⁶ emphasizes that in a proven case of cirrhosis of the liver roentgenologic demonstration of a mass in the region of the liver which may displace other viscera or produce lobulation of the diaphragmatic shadow suggests strongly the diagnosis of primary carcinoma of the liver. The finding of bloody peritoneal fluid is suggestive, but demonstration of malignant cells in this fluid is frequently unsatisfactory, as illustrated in our cases. Needle biopsy or peritoneoscopy may be of value in patients in whom an exploratory laparotomy is not deemed advisable. Ruddock¹⁷ was able to achieve a diagnostic ac-

curacy of 93.7 per cent in primary and secondary tumors of the liver through the use of peritoneoscopy.

Pathologically primary carcinoma of the liver can be divided into 3 types. The first and most common is the hepatocellular carcinoma which arises from the hepatic cells. The second is the cholangiocellular carcinoma of intrahepatic bile duct origin. The last type or mixed cell carcinoma is a rare form showing characteristics of both of the previous cell types. The ratio between the first and second types as reported varies from 3:1 to 9:1.^{9, 11} Macroscopically these types cannot be distinguished. Intrahepatic metastases are very frequent in primary carcinoma of the liver, particularly in the hepatocellular type. The gross finding of multiple nodules in the liver has led to 2 views of origin, first, a multicentric origin in the liver, and, second, a unicentric origin with intrahepatic metastases. The question is still unsettled. Extrahepatic metastases are less common, occurring in about 50 per cent of cases.¹¹ As illustrated by our cases, hepatocellular carcinomas metastasize more frequently than cholangiocellular carcinomas.¹⁸ The regional lymph nodes and the lungs are the most frequent sites of extrahepatic metastasis.

The most interesting phase of the problem is the frequent association of primary carcinoma of the liver and preëxisting cirrhosis. This association has been noted in from 61.3 to 87.2 per cent of cases reported.^{9, 11, 19, 21} Berk and Lieber¹⁹ found an incidence of 4.5 per cent of hepatic malignancy in 1,989 cases of hepatic cirrhosis. The frequency of the finding of hepatocellular carcinoma in males has been explained on the higher incidence of cirrhosis in this sex. On the other hand, when primary carcinoma of the liver is found in females it is most frequently of the cholangiocellular type. This has been explained on the higher incidence of preëxisting biliary tract infection in females. Ewing¹⁸ was of the opinion that a uniform gradation existed between nodular

(Continued on page 618)

RONALD ROSS AND THE DEATH-DEALING MOSQUITO

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IT WAS in the year 1894 that Ronald Ross was again visiting England on a vacation from his duties in India. He had heard a great deal about Patrick Manson who had discovered the cause of filariasis and who had established a world-wide reputation in diseases of the tropics; in fact, Dr. Manson was becoming known as the "father of modern tropical medicine." He had some very definite theories about malaria, and Ronald Ross was very much interested in malaria. It was Dr. Manson's belief that the malaria parasite spent part of its life cycle in the body of the mosquito, although he supposed that man became infected, not through the bite of the insect, but from drinking water into which the parasite had passed from the mosquito.

Dr. Ross spent quite a bit of time with Dr. Manson and was thoroughly convinced by the latter that the mosquito hypothesis was the correct clue to follow in the malaria mystery. When Ross returned to his post in India, all the time that he could spare from his duties as regimental officer was devoted to studying the mosquito's anatomy.

His researches were carried out without adequate equipment and assistance, and he had many heart-rending difficulties to overcome. It was on August 20, 1897, at the end of a long, hot, fatiguing day when Ross, peering into his microscope, saw what he had been seeking. There under the lens of his microscope was a malarial parasite in the wall of the stomach of the mosquito, which was later identified as *Anopheles*.

Ross's happiness was short-lived, for only a short time after this discovery he was ordered to a different station where there was no malaria, and his investigations were thus completely in-

terrupted. After many months of pleading Ross was able to get himself transferred to Calcutta, where there were some malaria cases, although not too many for research purposes. It was for this reason that his demonstration of the remainder of the life history of the *Plasmodium* was done with the parasite of bird malaria.

By now Ross had become thoroughly intrigued by the malaria problem and he had also become thoroughly convinced that the importance of his work was not being appreciated in India and by the military medical department. He resigned his commission and became Professor of Tropical Medicine at the Liverpool School of Tropical Medicine. His scope was now widened; he paid many visits to tropical countries to continue his researches in malaria, and in time he attained a world-wide reputation as the foremost expert in this disease.

In 1902 Dr. Ross received the Nobel Prize in medicine because of his researches in malaria. Honors from all over the world were bestowed upon him in further recognition of his work. In 1911 he was knighted.

During the First World War Sir Ronald Ross was called upon by the British Government to become a consultant in tropical diseases, which post he filled with great distinction. After the war he continued this work for the Ministry of Pensions as well as conducting a private practice in tropical medicine in London. In 1926 he became Director-in-chief of the newly organized Ross Institute and Hospital for Tropical Diseases in London.

Ronald Ross was born on May 13, 1857 in India, at Almora in the Himalayas, the eldest son of Major (later General) Campbell Clave Grant Ross of the British Army. Until the age

of 8 young Ronald remained in India learning to speak Hindustani as well as English. In 1865, as was the custom of British families in India, Ronald was sent to England to be educated. He lived with an uncle and aunt, seeing his parents on rare occasions when they visited England.

Those early years in England were happy ones. Ronald Ross was fond of reading and music. He was also something of an athlete, excelling in swimming, fishing and sailing. His inclinations were toward the arts, but his father had set his heart on Ronald becoming a physician and entering the Indian Medical Service. At the age of 17, when General Ross was in England on a year's leave, Ronald entered St. Bartholomew's, one of the leading medical schools at that time.

Young Ross did not distinguish himself as a medical student. He was far more interested in poetry and music than in medicine. He drifted through his medical courses, and when the time approached for his examinations for his license he realized that he was inadequately prepared. By "cramming" he managed to pass the examination of the College of Physicians but failed to obtain his medical qualification. This was a bitter disappointment to his father, who was about to retire and had been anxious to have his son qualify for the Indian Medical Service before he himself left India.

Ronald was also disappointed, but he determined to make the best of it. As his degree of M.R.C.S. was acceptable as qualification for a ship's surgeon, he obtained a post as surgeon on the S.S. *Alsatia*, running between London and New York. He made several voyages as ship's surgeon, and as his work was not too demanding, he used his time to good advantage in studying for his medical degree, which he finally received early in 1881. It was a short time thereafter that Ross took the examination for the Indian Medical Service, which he passed and following which he received an appointment.

In spite of the fact that Ross had been born in India and had spent the first 8 years of his life there, he had no real feeling for India as his

home. As a matter of fact, India was completely foreign to him. In the course of his medical service he was frequently transferred from station to station and was far from happy and content. He saw misery and poverty everywhere he went; he saw disease taking a terrible toll of the native population; he began to take his work as a doctor seriously.

The regulations of the Indian Medical Service permitted a year's leave of absence after 5 years of duty. In 1888 Dr. Ross asked for and was granted his furlough and at once sailed for England. He put his year's leave to very good use; he devoted his time to studying for the diploma in public health, which the Royal College of Physicians and Surgeons had recently instituted, as well as learning the fundamentals of the new science of bacteriology which Pasteur had founded. Another important event took place during this visit to England; Dr. Ross married Miss Rosa Bloxam, who was to be his devoted companion for the rest of his life.

During his medical duties in India Dr. Ross had been particularly impressed by the terrible havoc brought about by malaria. It was estimated that at that time in India alone malaria was responsible for 1,300,000 deaths annually. About one third of all the British soldiers admitted to hospitals were suffering from malaria. The cause of malaria had been discovered by Alphonse Laveran in 1880. Laveran and others advocated the hypothesis that the mosquito played a part in transmitting the disease, but no proof of this theory had been forthcoming.

Being a member of the Indian Medical Service had its disadvantages. On his return to India after his year's absence in England he was given a 3-year appointment to a post in a part of India where there was no malaria and Ross was bitterly disappointed. He bided his time, however, and in 1893 was transferred to Secunderbad, a large military station which had many regiments of British and Indian soldiers and which was rife with malaria. Ross settled down to a study of the disease which had intrigued him for some

time. He worked on the problem in his spare time, receiving no encouragement from his superiors. However, he was a man with a strong purpose and the will to pursue it. He persisted in his labors, and after many trials and errors discovered what he had been seeking.

Ronald Ross had always had two loves, medicine and writing. He practiced both throughout his life. His most famous work was "In Exile," which was written little by little from 1890 to 1897 when he was engaged in his work that led to his discovery. It begins with the reflections of the young doctor in a foreign and far from congenial environment and contains many poems which bespeak his disappointment and despair. The most famous poem is the one he wrote on the very evening of the hot August day when he made his great discovery. It goes:

This day relenting God
Hath placed within my hand
A wondrous thing; And God
Be praised! At His Command,

Seeking His secret deeds
With tears and toiling breath,
I find thy cunning seeds,
O million-murdering Death!

I know this little thing
A myriad men will save.
O Death, where is thy sting?
Thy victory. O Grave?

Ross wrote several other volumes of poetry in addition to "In Exile." He also wrote three novels, "The Child of Ocean," "The Spirit of the Storm," and "The Revels of Osera." These were never very popular, nor did they sell any too well. His skill as a novelist was certainly not as great as his skill as a poet. His reputation in literature rests upon his poetic and lyric output rather than upon his excursions into fiction.

In 1927, one year after the opening of the Ross Institute of Tropical Diseases, Dr. Ross, who had been in poor health for some time, became paralyzed on his left side. However, he continued to devote as much time to research as his poor health permitted. Although his activities were

necessarily limited, he still carried on his work on malaria, attempting to put into operation preventive measures in areas where malaria was prevalent.

In the latter years of his life Ross had succeeded in achieving a calmness and serenity which is admirably summed up in a brief poem he wrote on his sixty-second birthday:

Untarnished winds the river,
Unblemished beams the morn;
I thank the Unknown Giver
For all since I was born—
Earth-beauty and soul-hunger,
Vision, love and scorn.

My years are now behind me.
I face the setting sun;
I have no hopes to blind me,
Duties to mourn undone;
Resplendent with the sunset
Age and rest are won.

After the death of his beloved wife in 1931 Ross felt alone and tired. He was discouraged, and life had lost its zest. He went to live at the Ross Institute. The last year of his life was sad and lonely, although he received devoted care from the medical and nursing staff.

It was on September 16, 1932 that Sir Ronald Ross died. Sir Malcolm Watson, who had been closely associated with him in his work for many years, has described the closing scene of Ross's life in the following words:

"On September 15 his weakness increased rapidly. He had no fear of death. He slept most of the afternoon, and it seemed as if he would pass away in his sleep. But about seven o'clock he awoke, smiled, and said, perhaps because he felt the days of seeing through a glass darkly had come to an end, 'I shall find out things—yes—yes.' And then he died."

Together with Laveran and Manson, Ross formed the immortal trio that helped to solve the riddle of malaria, what caused it, and how it could be prevented. Ross was one of the great healers of all time, a doctor who contributed much to the understanding of tropical diseases and how they could be kept under control.

President's Page

WELCOME A. M. A.

The American Medical Association is with us again!

Not since 1927, when the A.M.A. met here last, has Washington been honored by the presence of so much medical talent. Previous Interim Sessions in Cleveland and St. Louis have shown how such conventions should be arranged, and the local Committee on Arrangements under the chairmanship of Dr. Oscar B. Hunter has been working vigorously with the officers in Chicago to make this a better meeting than ever.

Probably few physicians even in Washington are acquainted with the National Guard Armory where the Scientific Assembly and the Exhibits are to be housed under the same roof. It remains to be seen whether the facilities are as good as they look on paper, but those who have investigated the Armory are expecting great things.

The presentations differ from those of the annual scientific assembly in that there are no general lectures nor section meetings with individual reports of scientific progress. Instead there is to be a series of lectures and demonstrations on a wide variety of timely topics. These presentations will be handled by experts, with particular reference to their value to the general practitioner. Furthermore, the same topics will be repeated once or twice so as to permit the interested physician to plan his program in the face of the inevitable conflicts. Famous doctors from all over the country will act as coördinators with the local committees to see that the programs are as enticing as possible. They will have to work hard and think fast to keep ahead of the men and women who are doing their utmost to make the Scientific Exhibit and the Technical Exhibit even more attractive to those in attendance. Movies and television are developing into important audio-visual aids to postgraduate medical education, and they, also, are well represented at this meeting.

While the Clinical Session is in full swing, the House of Delegates of the American Medical Association will hold its semi-annual meeting for the transaction of the business of the Association. This representative body will hear what the delegates have to say on such timely subjects as voluntary versus compulsory health insurance, the reactions of members of the Association to the assessment, and the educational campaign at present being conducted from headquarters.

The Medical Society of the District of Columbia believes that it has a stake in the future of organized medicine in this country, and it welcomes the Association with all cordiality.

Walter Freeman

Editorials

AMA'S THIRD ANNUAL CLINICAL SESSION

For the general practitioner who desires to bring himself up to date on the latest technics in therapy, surgery and diagnosis there is no better medium than the Clinical Sessions of the American Medical Association. These meetings are designed principally for such physicians. Clinical demonstrations are coördinated with scientific exhibits. Medical leaders from all parts of the country contribute to the advancement of professional knowledge.

The Third Annual Clinical Session in Washington, December 6 to 9, will be outstanding in that respect. Two previous meetings, in Cleveland and in St. Louis, have not only demonstrated the value of such gatherings, but have shown what the general practitioner most desires in the way of a refresher course.

Built around the diseases encountered most frequently by the general practitioner, the discussions will cover such subjects as arthritis, cancer, heart and blood vessel diseases, poliomyelitis, problems of delivery, fevers, diabetes, pediatrics, physical medicine and many others. The status of cortisone and ACTH will be brought up to the minute.

Correlated scientific exhibits will supplement the clinical presentations. These, too, have been selected for their appeal to the physician in general practice. Of particular interest will be the special demonstrations on fractures of the spine, lower end of the radius and ankle. There will be demonstrations of laboratory procedures, including bacteriology in the office of the general practitioner.

Thirteen motion pictures have been selected because they have been slated for the same audience. For those who have never witnessed the televising of operations and clinics they have a surprise in store. At the annual meeting in Atlantic City last June, doctors stood in line to get into the theaters where the receivers were located. Through that medium, physicians virtually stood by the side of the surgeon and the clinician.

Technical exhibits have been patterned on the requirements of the general practitioner. They will permit the family physician to keep abreast of improvements in products needed to combat disease.

Again, a physician will be picked as the "General Practitioner of the Year." This award is a recognition of the respect and credit due the family doctor. On the lighter side will be an entertainment program outstanding for its excellence.

Put together, the forthcoming four-day meeting in Washington is an event which the general practitioner, no matter where he lives, can ill afford to miss. It will pay big dividends in increased medical knowledge. His attendance is something he owes not only to himself but to those he serves.

OSCAR B. HUNTER, M.D.

*General Chairman, Local
Committee on Arrangements,
Clinical Session of AMA*

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia

CHRONIC ILLNESS

One of the medical problems which is coming into wider recognition by the public and by the medical profession is chronic illness.

How many persons suffer from a chronic disease is not certain, but it is unquestionably large; in 1936 the National Health Survey estimated the number at about 25 million, or nearly one sixth of the population! With the rapid increase in the number of older persons, and the greater incidence of chronic illness in the later years of life, the number may be expected to increase, and with it, among others, the problems of economic dependency or inadequacy. Many types of chronic disability, however, are found among children or young adults, such as rheumatic heart disease, arthritis, tuberculosis, infantile paralysis. The medical problem is not limited to the aging, by any means.

Chronic illness, as its name indicates (Greek *chronos* = time), is of long duration. Perhaps a more important point, however, is that its tendency is not toward spontaneous recovery, as contrasted with acute illness, from which, without medical aid, the patient either dies or recovers. The chronically ill patient remains disabled at least to a degree. Most, however, are

ambulatory and capable of self support; it is estimated that of the 25 million referred to above only about 1½ million were chronic invalids.

In view of the tendency of chronic disease, the preventive aspect assumes commanding importance. Progress is being made in dealing with the various disabilities, to be sure, thanks to the ingenuity of our medical confrères, and a concerted attack on cure and prevention is now being launched.

In May of this year the Commission on Chronic Illness was established under the auspices of the American Medical Association, the American Hospital Association, American Public Health Association, American Public Welfare Association, and representatives of the general public—industry, labor, religion, and other related groups. A large group of technical advisers are serving the Commission, representing special fields, such as rehabilitation, various medical specialties, nursing, statistics, and so on.

Every physician will welcome the establishment of this Commission. It augurs well for a possible solution to one of medicine's and society's most pressing problems.

W. O.

CHRISTMAS SEAL SALE

The opening of the 1949 Christmas Seal Sale on November 21, the 43rd anniversary of the organized fight against tuberculosis, presents to the people of Washington a responsibility and an opportunity. The responsibility is by no means limited to the hundreds of public-spirited citizens—physicians and lay leaders—who have undertaken the hard work entailed in directing the campaign; it devolves on all citizens.

While responsibility for the control of tuberculosis rests with the medical profession and official agencies, the effectiveness of the community program depends on the knowledge and

understanding of the people concerning the problem of tuberculosis and on their willingness to act to prevent and control it. Its success, in a democracy, is to be gained through education of the people. The District of Columbia Tuberculosis Association, a voluntary health agency, through education and demonstration promotes the needed action and creates the demand for a sound community tuberculosis control program. Christmas Seals are its only support.

Ninety-five per cent of the annual Christmas Seal income in the District is spent locally. The remaining 5 per cent is turned over to the Na-

tional Tuberculosis Association for medical research and other services. The National Association through its medical branch, the American Trudeau Society, this year is carrying on 22 scientific studies on tuberculosis.

Working always in coöperation with the medical and nursing professions and with public health agencies, the Association carries on a year-round work which falls into the following categories: case finding, rehabilitation, public information, education, social research and a personal information service. Christmas Seal funds helped to sponsor the Washington Chest X-ray Survey. They helped to establish the mass chest X-ray unit at Freedmen's Hospital, and the Pulmonary Disease Clinic at George Washington University Hospital; they are helping to meet this hospital's needs in operating its Clinic. Christmas Seal funds make it possible for the Association to participate in the Metropolitan Washington Tuberculosis Conference. They promote tuberculosis education among student nurses, and provide reference materials to physicians and medical students.

Through the Association's Case-finding Service, annual chest X-ray examinations are promoted among employee groups, general hospital admissions, college students, and community groups. For many people chest X-ray examinations now have become a yearly practice. Many firms require chest X-rays as part of preemployment physical examinations.

A program of rehabilitation in the four local tuberculosis hospitals is aimed at helping patients to return to normal, active, useful lives through education, training and job-finding assistance. This work is carried out through co-operation with physicians, hospital officials, the District Rehabilitation Service, the U. S. Employment Service, the Board of Education, and social agencies in the community.

Through its Public Information Service, the Association keeps before the public current in-

formation on tuberculosis and news of its activities through all established media of information.

Hundreds of people each year are served through its Personal Information Service. Many are helped in solving problems concerning tuberculosis through personal counseling; some are referred to their private physicians, and many others are referred to the District Health Department's Bureau for Tuberculosis.

Statistical and related information is important for guidance in the Association's work. Facts are the foundation on which sound programs of tuberculosis control are built and maintained. This information is provided through the Association's Research Service.

The Adult and School Health Education Services provide programs to demonstrate both the need for education in the prevention and control of tuberculosis and the methods and materials necessary for such programs to organized community groups such as schools, churches, and parent-teacher, citizen, veterans, fraternal, and youth-serving groups. Once demonstrated successfully, these programs are set up on a permanent basis as part of the regular programs of the organizations. Through its Speakers' Bureau the Association furnishes to these groups able speakers and motion pictures that tell the story of tuberculosis as it affects the lives of people. To demonstrate the need for patient education, programs of individual instruction are provided to newly admitted patients at Glenn Dale Sanatorium.

The District of Columbia Tuberculosis Association is one of the 3,200 voluntary associations affiliated with the National Tuberculosis Association which will begin the sale of Christmas Seals on November 21 for tuberculosis control programs throughout the country.

EDWARD K. FUNKHOUSER

*Executive Secretary, District of Columbia
Tuberculosis Association*

THINGS ARE NOT ALWAYS WHAT THEY SEEM

Do many of you readers remember the automobiles which were made around 1900? It was something to brag about if a trip of ten miles in one of them was made without a puncture or a mechanical breakdown. The Franklin car came out with a new feature called air cooling. You did not have to put water in the radiator; in fact, there was no radiator. This was probably the car which started the oil companies on the road to success because it consumed oil excessively and unless everything was adjusted perfectly—which it never was—clouds of smoke emerged from the exhaust which blinded any motorist who happened to be following. The car was cranked by a handle and from the side of the front seat and would sometimes start after much muscular effort and many remarks addressed to the car by the motorist about God and the bad place.

Some time in 1908 when I had been in practice for about one year and was using shanks' mare and streetcars to attend my meager practice, Dr. Fred Barton told me that he was in charge of the affairs of a doctor who was incurably insane and that among his effects was an old Franklin car whose rubber was not so good but which he knew would run after a few minor repairs. He could let me have it for \$100. I borrowed the money for the car and a new set of tires and the sale was made.

How well I remember the pride with which I drove the car for the first time. Here I was in practice for only one year and I was already one of the few "automobile doctors" in town. I had not owned the car for more than a week when I had had three punctures and two repair bills. After making my morning rounds I could retrace my exact course because the smoke from the exhaust was still hugging the asphalt. I found great difficulty with the starter which, when it worked, required at least five minutes before the engine would turn over. I found it expedient—no, necessary, to carry a ten-foot rope in the car.

I would proudly drive up before my patient's house and improve his social standing by leaving my automobile in front while I paid my call. Upon returning to my car with the knowledge that admiring members of the family were peeking out from behind drawn shades, I would lift the crank handle out of the car to go to work. More often than not I had no success. There I would have to wait for a passing grocery wagon whose driver would allow me to attach my rope, and the car would be pulled twenty feet or more before the engine would turn over and catch on. I began to comprehend one of the etiologic factors in the illness of the former owner.

After a month of blood and sweat and tears and expense I decided to resell the car if possible. After each demonstration the prospective purchaser could find more faults than even I had discovered during the month I owned it. At last I took the car to Welcher's auction rooms on Pennsylvania Avenue near Tenth Street and asked them to sell it for \$100. In order for me to obtain \$100 the car had to be auctioned for \$110 (\$10 was for the wear and tear on the auctioneer's larynx).

I was present, of course, on the day of the auction sale and I waited while several much better looking cars were disposed of, none of them bringing much more than \$100. At last the auctioneer approached my car. "What am I offered?" he said. There was a long pause. Finally one of the more myopic spectators began the bidding at \$50. I promptly bid \$60. After some consideration he bid \$70, and so it went slowly and cautiously until I had bid \$100. "Going for \$100," said the auctioneer. "Do I hear any further bidding? Going one, going two"—my opponent in the bidding, his voice husky and hesitating and low was heard by the auctioneer to say \$110. "Let him have it," I said, simulating disappointment as nearly as I could. "Sold for \$110," said the auctioneer.

While I waited on the sidewalk until the new purchaser could settle for the car inside the store before I could also enter and collect my \$100, a sympathetic, fatherly-appearing man in the crowd approached me, placed his hand on my shoulder and said, "Don't you be too much disappointed young man—that was a rotten car!" I thought to myself that the man who said

"Things are not always what they seem" was no slouch.

I was not unlike the farmer who bought a pig in the spring for \$10 and sold it in the fall for \$10. His friend remarked that he did not make much profit, but the farmer said, "I don't know; you see I had the use of the pig all summer!"

JAMES A. GANNON, M.D.

THE DAVIDSON LECTURER FOR 1949

On the evening of October 12, 1949, Dr. Arthur A. Morris delivered the tenth Davidson Lecture before the Medical Society on the subject of "The Surgical Treatment of Psychomotor Epilepsy." His paper was selected as most outstanding from those submitted in competition for the award. President Walter Freeman presented Dr. Morris with a check and a framed certificate.

The Davidson Lecture was established in 1929 to commemorate the service rendered to the medical profession in Washington by Dr. Edward Young Davidson, who was responsible for the erection of the Society's building. The Lecturer is selected biennially on the basis of competition by a subcommittee of the Executive Board. This year's committee was Dr. William Earl Clark, *Chairman*; Drs. Coursen B. Conklin, Walter Freeman, William P. Herbst, and Raymond T. Holden.



ARTHUR A. MORRIS, M.D.

Dr. Morris, one of the younger members of the District Medical Society, has entered upon an unusually promising career. He is a writer and a teacher. The list of his published articles in medical and other scientific journals is already a long and impressive one.

He was born in Winston-Salem, North Carolina, August 12, 1917. He received an A.B. degree from Duke University in 1940 and his degree in medicine from the same university in 1943. He divided his internship between Duke University Hospital and Montreal Neurological Institute of McGill University. He was Assistant Resident at the latter institution from 1944 to 1945 and the following year was Resident. From 1946 to 1947 he was Resident physi-

cian at the Baptist Hospital University of Tennessee, in Memphis.

Dr. Morris combined his resident training with considerable postgraduate study. He was Fellow in Neuropathology at McGill University in 1946 and a Research Fellow in Neurophysiology, also at McGill. From 1947 to 1948 he was Associate in Private Neurosurgical and Neurological Practice with Dr. R. E. Semmes, Professor of Neurosurgery at the University of Tennessee, following which he returned to McGill University to take a refresher course in electroencephalography.

Dr. Morris is at present Instructor in Neurosurgery at Georgetown University School of Medi-

cine. He has already acquired considerable teaching experience, at McGill University, as Instructor in Neurosurgery and Instructor in Neuropathology and Neurophysiology, and at the University of Tennessee as Assistant in Neurosurgery.

His affiliation with the Medical Society of the

District of Columbia began in 1948. He is the immediate Past President of the Neurosurgical Society of America. He is also a member of Phi Chi Medical Fraternity.

Dr. Morris lives with his wife and small son at 3913 49th Street, N. W.

In and Out of Focus

BY THE OBSERVER

Another Successful Meeting

Having been intimately associated with the Medical Society's ANNUAL SCIENTIFIC ASSEMBLY since 1939, your Observer is naturally familiar with the problems which arise before, during and after this meeting. He learned long ago that its success depends not alone on careful planning but on close attention to innumerable details.

Despite every precaution difficulties arise due to errors in judgment or oversight. However, the same mistakes are seldom made twice. As a result the ASSEMBLY today from the standpoint of operation has shown great improvement.

Comments on the 20th ANNUAL SCIENTIFIC ASSEMBLY would indicate that the recent meeting topped all previous efforts. One gathered the impression that the scientific program was one of the best yet offered. Attendance at scientific sessions confirms this. The large Presidential Ballroom at the Hotel Statler was filled pretty consistently throughout each of the three-day meetings. There was much praise also for the scientific and public health exhibits which generally were rated excellent.

In so far as your Observer is concerned, his duties in connection with the ASSEMBLY were much less arduous than anticipated due to the foresight and efficiency of those employed to assist him with arrangements. All booth equipment was in place on the Sunday morning preceding the opening of the meeting. Confusion

was thereby avoided and the installation of the various displays facilitated. Exhibitors were most cooperative and, with few exceptions, presented themselves and their display material at the time specified in notices sent them.

Attendance at the ASSEMBLY exceeded last year's by some one hundred and fifty. An analysis of the registration figures follows:

Physicians.....	1,711
Medical Students.....	402
Nurses.....	190
Technical Exhibitors	157
Miscellaneous.....	478
Total.....	2,938

On the lighter side there was the unique exhibit, Doctors in Sports. Some skepticism had been voiced in regard to this project because it was believed that physicians would be reluctant to participate. Any doubts which may have existed were soon dispelled. From every point of view this was a most interesting display and much appreciated by those who viewed it.

The Public Meeting program this year was sponsored by the National Foundation for Infantile Paralysis, Inc. Attendance at this meeting was all that could be desired and must have been as satisfying to the Foundation as it was to the ASSEMBLY's Committee on Arrangements.

As your Observer has previously reported, Dr. Robert J. Coffey was this year's General Chairman. Dr. Coffey's capabilities in this posi-

tion have previously been commented on in this column. He was ably assisted by the Vice Chairman, Dr. Karl C. Corley, who will be next year's General Chairman, and several committees of which the following were Chairmen: Dr. Stephen W. Nealon, Jr. (Program); Dr. A. Magruder MacDonald (Committee on Social Affairs); Dr. William J. Cusack (Committee on Special Exhibit); Dr. Leonard T. Peterson (Committee on Attendance); Dr. Paul F. Dickens (Committee on Public Meeting); Dr. Henry A. Grennan (Committee on Scientific Exhibits); Dr. Robert C. Rush (Committee on Public Health Exhibits); Dr. Alejandro F. Castro (Committee on Radio, Television and Motion Pictures); Dr. Helen Gladys Kain (Women's Activities).

Details in connection with the ASSEMBLY fell largely upon the personnel in the Society's Executive Offices. Their loyalty and enthusiasm had much to do with the smooth functioning of the meeting.

The alumni of the George Washington and Georgetown University Schools of Medicine also contributed a great deal to the success of the meeting. Their luncheons, which brought many members to the meeting who might not otherwise have attended, were, as usual, successful. In addition, the Medical College of Virginia Alumni Association gave a well attended dinner for its members. The always faithful Women's Medical Society attracted many women physicians from Washington and elsewhere to its dinner, and thereby helped stimulate interest in the ASSEMBLY.

Without adequate funds a meeting such as the present ASSEMBLY would be out of the question. While the income from commercial exhibitors is considerable, the ASSEMBLY could not be financed without additional funds supplied by public and voluntary health organizations and commercial firms. For example, a substantial portion of the costs of the Scientific Program, the Public Health



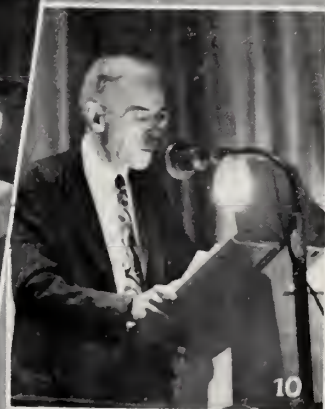
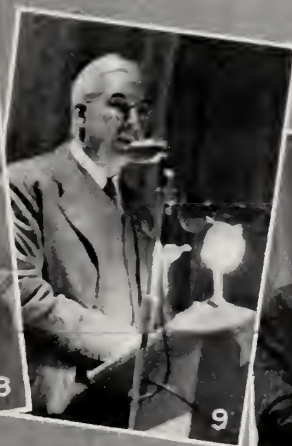
EXHIBITS AT THE 20th ANNUAL SCIENTIFIC ASSEMBLY

Upper left: The Technical Exhibit in the Congressional Room of the Hotel Statler, where physicians found much of interest between scientific lectures.

Upper right: The Special Exhibit on Doctors in Sports.

Lower left: Two of the many Scientific Exhibits.

Lower right: Corridor in the Public Health Exhibit.



Photos by Dr. Leslie H. French

SPEAKERS AT THE 20th ANNUAL SCIENTIFIC ASSEMBLY

Among the speakers at the recent Assembly of the District Medical Society were: (1) Dr. Jean Paul Pratt, Detroit, (2) Dr. Wilhelm C. Hueper, Bethesda, Md., (3) Dr. William P. Herbst, (4) Dr. Freddie Homburger, Boston, (5) President Walter Freeman, (6) Dr. Edward A. Gall, Cincinnati, (7) Dr. Laurence H. Kyle, (8) Dr. George E. Burch, New Orleans, (9) Dr. Harry H. Kerr, and (10) Dr. Paul D. White, Boston.

Exhibit and the Public Meeting were subsidized by the District of Columbia Division of the American Cancer Society, the National Foundation for Infantile Paralysis, Inc., the District of Columbia Chapter of the American Red Cross, the Hospital Service Agency, the Washington Committee for Education on Alcoholism, and the District of Columbia Health Department.

The official program was paid for by Peoples Drug Stores as was the cocktail party preceding the annual dinner. Maxwell and Tennyson contributed the Presidential Ballroom for the Public Meeting. This firm also provided the show cases for the Doctors in Sports exhibit.

Usually one is content to pay firms for their services with no thought of expressing appreciation. It is only fair to state here that a large share of the credit for a smooth-running meeting must go to United Booth Equipment, Inc., which installed booths in all the exhibits, and to Railway Express Agency, Inc., which so expertly handled the transportation of display material to and from the Statler.

Before memories of the recent ASSEMBLY have faded from the minds of those in attendance work will have begun on the 21st ANNUAL SCIENTIFIC ASSEMBLY. Dates on which it will be held have already been decided upon, October 2, 3 and 4, 1950.

Along in January wheels will begin to turn in preparation for another ASSEMBLY.

★

Drs. Mallory and White Honored On several occasions in the past few years members of the Medical Society have been honored for their outstanding contributions to medicine in the District of Columbia. Among those who have been awarded certificates for meritorious service are: Drs. Edward Y. Davidson, Coursen B. Conklin, John B. Nichols, Arnold McNitt, Henry C. Macatee, Joseph S. Wall and Arthur C. Christie.

Last year two members were honored for the first time at the annual dinner held in connection

with the 19th ANNUAL SCIENTIFIC ASSEMBLY. Much favorable comment was heard on the choice made by the Society's Executive Board which selected Drs. Christie and Wall. The selection of Drs. William J. Mallory and Charles Stanley White for recognition this year has likewise been widely applauded among the medical profession.

Certificates for meritorious services are individually prepared so that they apply specifically to the physician honored. The certificate given Dr. Mallory states that it was "presented in recognition of his outstanding contributions to medicine. A kindly, able practitioner of medicine, he is highly respected and greatly beloved by the medical profession of Washington. An eminent medical educator, he has profoundly influenced the lives of a generation of physicians. His cultural attainments are widely known and greatly appreciated by a large circle of friends."

For the benefit of the younger physicians in Washington it might be well to set forth here some of the pertinent facts about Dr. Mallory's career.

Dr. Mallory was born in Goochland County, Virginia, August 25, 1874. His early education was obtained in the public schools of Virginia and the Virginia Mechanics Institute. He received his medical degree from Columbian University (now George Washington University) in 1903 and his M.A. from George Washington University in 1914. He did postgraduate work abroad both in the Far East and in Europe. Dr. Mallory's service to his alma mater began in 1911 when he became Instructor in Medicine at the George Washington University School of Medicine. He progressed from Associate in Medicine (1917-1924) to Professor of Medicine (1924-1938). From 1929 to 1938 Dr. Mallory was Chief of Medical Service at the George Washington University Hospital. In 1938 he became Professor Emeritus of Medicine.

Dr. Mallory served in the United States Army Medical Corps in 1918 as Captain. He became a Lieutenant Colonel in the Medical Reserves and

Commanding Officer of the 75th General Hospital in 1924. He is a diplomate of the American Board of Internal Medicine and a member of numerous medical societies. He is also a Past President of the Medical Society of the District of Columbia.

Much more might be said about this distinguished physician if space permitted. However, it should be added that there are few physicians who are as beloved by their students and fellow physicians as Dr. Mallory. His manner is always gracious and charming. People enjoy being in his presence.

Dr. White's citation reads, "...in grateful acknowledgment of his outstanding contribution to medicine. One of the country's leading surgeons, he has distinguished himself in the field of medical education. He conceived the Annual Scientific Assembly of this Society. By example and precept he has had a profound influence for good on medical practice in the District of Columbia."

Dr. White, a native of Washington, was born July 1, 1877. His early education was received in the city's public schools. He obtained his medical degree from George Washington University in 1898 and an honorary doctorate in science from the same university in 1946. Dr. White did postgraduate work in physiology at Harvard Medical School and received his subsequent training as intern and resident in George Washington University Hospital, Columbia Hospital and Emergency Hospital.



Courtesy Washington Star

DRS. MALLORY AND WHITE CITED FOR MERITORIOUS SERVICE

DR. CHARLES STANLEY WHITE (second from right) receiving congratulations on his award from DR. WALTER FREEMAN, President of the Medical Society of the District of Columbia, at the banquet in the Presidential Ballroom of the Hotel Statler, the closing feature of the 20th ANNUAL SCIENTIFIC ASSEMBLY. DR. WILLIAM J. MALLORY (left) was similarly honored. DR ROBERT J. COFFEY (second from left), General Chairman of the Committee on Arrangements, presided at the dinner and presented the awards.

He became Professor of Surgery and Head of the Department of Surgery at George Washington University in 1930 and continued in this position for 16 years. A member of the faculty of his alma mater for more than 45 years, Dr. White was elected a member of the Board of Trustees of George Washington University in 1946.

Among the many positions he has filled is that of Deputy Coroner for the District of Columbia for five years. He was a Lieutenant Commander in the Medical Reserve of the United States Navy from 1918 to 1921.

Like Dr. Mallory, Dr. White is a member of many organizations and a Past President of the Medical Society of the District of Columbia.

As was to be expected, both of these gentlemen responded to the remarks of Dr. Robert J. Coffey, General Chairman of the Committee on Arrangements for the 20th ANNUAL SCIENTIFIC ASSEMBLY, who presided at the ceremonies in their honor, in their characteristic modest manner.

Dr. Mallory said:

"This is like champagne! It goes directly to the head, and through the sympathetic nervous system affects the heart causing an enlargement and a lifting up. Osler wrote that Sir Andrew Clark told him that he had struggled ten years for bread, twenty years for bread and butter, and twenty years for cakes and ale. Well, when I began the study of medicine, I was not so sure of the bread or butter, but felt certain that I would learn all about everything that was worth knowing—and of course I did.

"I learned what none of you younger fellows know: the 'four astringent brothers,' kino, Krameria, catechu and Haematoxylon. In neurology I learned about the 'iter a tertio ad quartum ventriculum,' and in surgery about a ranula, ptyrigium and epulis.

"Some wise man wrote: 'We learn something from our formal training, more from association with our betters, and still more may be learned from the literature as to how the great game of life has been played by the best players.' Now, I have learned a great deal from my betters in this Society, which has been helpful to me, and I value all that with the associations most highly; but more than all the bread and butter and even the cakes and ale, I value this certificate as a token of the esteem and kindly feeling of my fellow members of the Medical Society of the District of Columbia. I can only acknowledge my gratitude by saying in the words of Christopher Robin, 'I thank you very sweetly.'"

Dr. White responded as follows:

"After listening to Dr. Mallory's scholarly and entertaining remarks my first impulse is, to use a popular political expression, to say, 'me too.' But on hasty reflection, I decided I would rather attempt to express my appreciation, inadequate though it may be, for the signal honor and act of generosity on the part of the Medical Society.

"When one is the recipient of such an honor, it seems an appropriate occasion to ask himself, not if he deserves the honor, but if he alone is responsible for the accomplishments cited in the award. It is my opinion that every career is modified by heredity and environment. I was fortunate in having intelligent parents, not of my own choice, however. Any habits, traits of character, or philosophy of life with which I was endowed were due entirely to chromosomes in which I had no voice.

"The medical school I attended had a faculty which was an inspiration to every student. I recall J. Ford Thompson, W. W. Johnston, A. F. A. King, E. A. de Schweinitz, D. W. Prentiss, D. K. Shute, W. P. Carr, Walter Reed, James Carroll and John B. Nichols, among

others who constituted that teaching staff. To some of our younger members, these may appear as fictitious or mythological persons, but I assure you that in their time and generation they stood apart in any group of medical men. During my internship and early days of practice I had the advice and example of George Tully Vaughan, James Kerr, Swan M. Burnett, Charles W. Richardson, S. S. Adams, George N. Acker, Henry D. Fry, John F. Moran, I. S. Stone, J. Wesley Bovée and many other members of the faculty. The transactions of the Medical Society is replete with their names.

"For over forty years I have been a member of the Medical Society, serving as an officer and as a member of many committees; I have attended meetings frequently, and paid my dues. Through these duties and a fairly active practice I have had many contacts with members of our organization. I have found them as a group alert, progressive, coöperative, cordial and honorable. I have cherished this environment, finding it pleasant, stimulating, and sometimes thrilling. And, last, but by no means least, I have had the valuable assistance of my devoted wife.

"It is my firm conviction, Mr. Chairman and Mr. President, that many members of the Society have served under conditions I have described and are eligible for such honors as you have granted me tonight. It is my hope that I shall live to see similar honors bestowed on them. Thank you again."

Undoubtedly many other deserving members of the Society will be honored in years to come. That is the least a grateful profession can do to show its appreciation of the accomplishments of their outstanding colleagues.

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District- Virginia Borderline Privileges

Efforts to establish reciprocal borderline privileges for the District of Columbia and Northern Virginia physicians have been previously reported in the MEDICAL ANNALS. It will be recalled that Dr. George C. Ruhland, formerly Secretary of the Commission on Licensure for the District of Columbia, informed the Medical Society many months ago that he was encountering difficulty with the Virginia Board of Medical Examiners in attempting to bring about a satisfactory arrangement. The Board said it was powerless to act until the Virginia legislature enacted legislation which

would authorize it to extend borderline privileges to District physicians. The District had long granted these privileges to Virginia practitioners. Dr. Ruhland requested the Medical Society's assistance in an effort to obtain the coöperation of Virginia authorities.

The Society's Executive Board thereupon instructed the Secretary to communicate with the nearby Alexandria City, Arlington and Fairfax County medical societies, requesting their support. The Alexandria City and Arlington County societies responded promptly giving assurance that they would coöperate.

Weeks passed without any further developments. Finally, Dr. Ruhland again called upon the Medical Society for assistance. With the approval of the Executive Board the Secretary wrote a letter to the Medical Society of Virginia asking its help. The reply was not encouraging, the Virginia Medical Society's position being that until its northern county medical societies appealed for aid it would take no action.

Nothing further was done until a few days before Dr. Ruhland's retirement, when he announced that borderline privileges granted Virginia physicians by the District would be cancelled as of October 1, 1949. It was then learned that the Arlington and Alexandria medical societies were engaged in obtaining the support of legislators in their jurisdictions who promised to bring the matter before the Virginia Assembly at its next session.

In view of this situation the Society's Executive Board instructed the Secretary to urge the Commission on Licensure to rescind its order cancelling borderline certificates issued Virginia physicians and that no further steps be taken in the situation until the Virginia Assembly had had an opportunity to consider the matter and act upon it. This course, it was stated, would decidedly be in the best interest of the public and the medical profession. The Commission took the matter under advisement and finally rescinded its action as suggested by the Society.

The most recent development is not too en-

couraging. The House of Delegates of the Medical Society of Virginia refused to go along with the Alexandria City and Arlington County medical societies in their efforts to obtain favorable legislative action. Regrettable though this is, the nearby county medical societies are not discouraged. It is hoped that these societies will be successful because the communities served by the physicians affected are an integral part of the Washington Metropolitan Area and licensure policies should be as liberal as possible.



An Enduring Memorial

During the recent ANNUAL SCIENTIFIC ASSEMBLY one of the younger members voiced his appreciation of the Medical Society's building. He said he enjoyed attending meetings because he was always impressed by the architectural beauty of the structure. It made him proud to be a Society member.

Such comments are not frequently heard. Undoubtedly there are many others who appreciate the Society's good fortune in owning such an attractive home. The impression one gains, however, is that most members take the building for granted, knowing very little about its history.

Your Observer never ceases to wonder at the courage and enterprise of the members who made the building possible. It was really a remarkable achievement, all things considered. Membership in the Society was approximately one-third what it is now, that is, about 550. To ask a group as small as this to underwrite a \$115,000 project was, to say the least, audacious. Most of the credit must go to Dr. Edward Young Davidson who led the drive for funds. Undaunted by the challenge he worked tirelessly for a project which was close to his heart. Having obtained enough funds to get the building under way, the best architects and builders were employed.

The building was completed in 1920, and is now nearly 30 years old. The quality of the planning and materials used is still evident, for in appearance it is as attractive as it was when erected.

Dr. Davidson, of course, had no thought that his contribution would be recognized many years later. Thus he unwittingly created for himself a lasting memorial. So long as the Medical Society of the District of Columbia endures his memory will be revered. Today a splendid portrait of him hangs in the Board Room and a bronze plaque in the lobby reads: "The Davidson Lecture, established May 1, 1929 as an enduring expression of the gratitude of the Medical Society of the District of Columbia to Edward Young Davidson, M.D. who when President of the Society in 1916 conceived and led to completion the movement which provided this building."

No matter how well a structure has been built, replacements and repairs are required. Obviously it is the obligation of the Society to see that the building is not allowed to deteriorate. Any building erected more than a quarter of a century ago is also in need of modernization. Among the improvements which have been recommended by the House Committee are: reconditioning and necessary changes in the air-ventilating system in the auditorium; air-conditioning of the offices on the first floor, the lobby and the library; replacement of the lighting system throughout; replacement in the near future of the heating system; and the installation of the required safety equipment.

Most members are familiar only with the offices, library and auditorium of the Society's building. They have never seen many other rooms, i.e., storage rooms, janitor's quarters, kitchen, and so on. These require constant repainting and repairing. Members might well ask to be taken to all parts of the building because they would be surprised at its size.

The adjoining property on the east, 1710 M Street, Northwest, is also owned by the Medical Society. Only the first floor has been occupied by the Society's Executive Offices and MEDICAL BUREAU. The upper floors of this property are rented to a rooming-house operator. What eventually will be done with this portion of the building remains to be seen.

Every member of the Society owes a deep debt

of gratitude to Dr. Davidson and those who assisted him in making the building at 1718 M Street, Northwest, a reality. This debt can best be discharged by maintaining it in the best condition possible.

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There is ample evidence that "...an Appeal to the Pocket-book..." a majority of physicians believe that status quo in medical practice is neither possible nor desirable. While they are unalterably opposed to compulsory health insurance, they have supported changes proposed by their leaders in an effort to make medical care more readily available to the people at a cost within their means. Some may not have been too enthusiastic about the proposals adopted but at least they have done what was asked of them.

By far the greatest number of physicians have had little patience with combative die-hards who oppose any change. They resent deeply those within their ranks who stir up controversy by appeals to prejudice. They look with disfavor upon their colleagues who resort to questionable tactics in opposing a Government system of medical care. But their displeasure is equally visited upon public officials who resort to the same methods.

Oscar R. Ewing, Federal Security Administrator, although vocal on the subject, has on occasions revealed a sad lack of knowledge about health matters. He has not been above frankly appealing to prejudice in an effort to gain support for the Administration's health insurance program. On occasion his Wall Street background comes to the fore. He is again the business man driving a bargain.

An example of the latter were statements made by him in an address before the National Association of Retail Druggists last September. As usual, he had nothing good to say for the American Medical Association. That was to be expected because he and the AMA have been "feudin'" for some time now. What surprised your Observer was not Mr. Ewing's bid for NARD support of the

Administration's health insurance scheme but that his appeal was based on increased profits for druggists.

Listen to this!

"... the President's health program is not simply a series of isolated recommendations. It is a carefully formulated plan of operation for which all the constituent elements are essential if the plan is to click. National health insurance and the distribution of medical purchasing power is a very important element. It is the animating factor which gives life and vitality to the whole project.

"In all this I do not see how the retail druggist can fail to profit enormously. As to your own status under National health insurance, there is nothing which would in any way disturb your present method of doing business. You are, of course, aware that only the unusually expensive drugs and medicines—those not ordinarily handled over most drug counters—would be paid for out of the National insurance fund. For the rest, you would have exactly the same cash register relationship with your customers that you do now.

"But that relationship, it seems to me, should be a very happy one. With literally millions of additional patients seeking out doctors for medical advice, your volume in drugs and medicines should show a corresponding gain. Certainly, the more patients there are seeking medical advice, the more customers there will be handing their prescriptions across your counters. And certainly there is no reason to suppose that, for their minor ills, the American people will give up their well-entrenched habits of relying on tested and useful proprietary remedies. My own guess is that in such an expanded market you will sell more aspirin and more mineral oil.

"Beyond this, your customers as a whole will have relatively more money to spend for drugs and medicines than they do now. And this is something I think most of you gentlemen may have overlooked. In the event of an illness, all doctors' and hospital bills will be met out of the insurance fund. No patient will have to worry about those expenses. For that reason, the cost of ordinary drugs and medicines will present much less of a problem to the average pocketbook. In fact, it would be the only medical cost that would require outright money in hand. As a consequence, there would be far less tendency to economize on drugs than if it represented only one of the many and heavy expenses of a serious illness. And for your purposes, gentlemen, that should be all to the good."

The druggists were not taken in by the Federal Security Administrator's promises. Mr. Robert

L. Lund, President of the St. Louis College of Pharmacy, called it "an appeal to the pocket-book rather than to principle," which it certainly was.

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*"... Its
Harassed
Best..."*

It seems that everyone having a personal interest in the British National Health Service, with a reasonable excuse and funds to do so, endeavored, during the first few months of the Service's existence, to make a trip to Britain so that he might be first to report his observations. Included in this group were writers, physicians, sociologists, welfare workers and politicians. As might be expected, they differed widely in their conclusions, which your Observer felt were on the whole premature. For it was quite evident that the system had not yet jelled so as to reveal its real strength and weaknesses.

Now that a year has passed since its inauguration, one should be able to gain a better perspective of the Service. Your Observer was particularly interested in the views of British physicians. Obviously patients are no judge of its merits where the quality of service is concerned. And this, after all, is of the most vital importance. Your Observer therefore read with considerable interest an editorial which appeared in the *British Medical Journal* for October 1, 1949 entitled, "A Year of N.H.S."

The editorial directs attention to a series of anonymous articles by physicians and others which appeared in an "extra number" of another English publication, *The Practitioner*. While impressed by the views of the authors, their anonymity, the *Journal* states, "diminished" the value of their contributions.

The *Journal* admits that "men working in a 'service' hesitate to put their names to anything in the nature of a criticism of it." The same tendency, it says, has been noted in the correspondence columns of the *BMJ*.

"The real danger of a service in which men and women are employed by the State—or, at least, paid by the State—," the *Journal* con-

tinues, "is that they will tamely acquiesce in things they dislike, or hesitate to put their names to forthright criticism. This may lead, in medicine, to a sapping of that essential of democracy—free discussion."

The editor of *The Practitioner* defends the anonymity of his contributors, stating that it "is essential 'when the chief concern is that writers should speak their mind with complete freedom, uninfluenced by the desire to please their friends or placate their enemies, to escape the labels of "traitor" or "reactionary," and when, as in several instances in this number, the article is a symposium embodying the views of several men.'"

However, the *Journal* observes "it is a sad and sorry comment on Medicine today to admit that only under the cloak of anonymity is it possible to speak the mind with complete freedom on what the same [*The Practitioner's*] editorial describes as 'one of the greatest ventures in the history of medicine.'"

According to the *Journal*, contributors to *The Practitioner's* symposium found many things to complain about. One of these is the difficulty of placing private patients in hospitals. The charge for private rooms has increased to a point where patients seek care in private nursing homes. At least one third of the beds in hospitals have been assigned to patients entitled to benefits under the Service. More beds in these institutions also are occupied by the chronic sick, thus depriving physicians in the hospitals of valuable teaching material. The author of these views also voices the complaint that too much of the physicians' time is spent on paper work and on committees, commissions and advisory boards.

The surgeon-contributor protested the drastic reduction of the senior surgeons' income. "'He may still charge no more than a junior may charge for removing a ruptured appendix,'" he wrote. "'The prospect of being rewarded according to the assessment of a witenagemot of worthies, instead of, as heretofore, in proportion to the place they have made for themselves, is humiliating.'"

"The physician seems to be less alarmed about his financial status than is the surgeon: 'Incomes,' he [the physician-author] writes, 'are about back to what they were.'" However, he observes that departments of pathology, cardiology and physiotherapy are overloaded with work.

Divided responsibility also comes in for some criticism. He points out that the general practitioner is responsible to the executive council, the midwife to the local health authority, and the obstetrician to the regional board or board of governors.

The general practitioner, it appears, is also having a difficult time of it due to the great increase in work. This contributor says of the Service in Scotland that "'Only the absence of a major epidemic last winter enabled busy practitioners to struggle through at all.'" Not only is the general practitioner overburdened with work but there is "a well-founded anxiety that general practice is losing much of its savour." There is a "'strong temptation to refer a patient [to a specialist] early instead of sharpening one's wits upon the case.'"

This author—a general practitioner—also finds himself excluded from a hospital and he observes that "no doctor of any character will be content for the rest of his days just to dance attendance on specialists or consultants as a 'clinical assistant,' particularly when in many instances he has had more years of practice than the 'specialist' has had of life." The warning is sounded that the general practitioner service "'must not be allowed to deteriorate into the last resort for disappointed hospital trainees.'" "The growing unattractiveness of general practice," the *Journal* concludes, "is the most serious repercussion of the National Health Service on the development of medicine in Britain."

Several of the authors deplore the haste with which the Service was introduced. Aneurin Bevan, the Minister of Health, however, takes the position that his was the proper course. "'To do it gradually, piece by piece, step by step,'" he

(Continued on page 618)

BULWARKS OF HEALTH*

WALTER FREEMAN, M.D., F.A.C.P.

President, The Medical Society of the District of Columbia

When this Society was founded in 1817 it was for the purpose of protecting the public from the quacks and charlatans that were even then thronging to the new City of Washington and preying upon the gullible public. The Charter of the Society was signed by President Monroe, and the Society was duly incorporated under the laws of the District of Columbia by act of Congress. The Articles of Incorporation had to be changed from time to time in order to permit the Society to keep pace with developments in the field of organized medicine. At first the Society was granted privileges that are now exercised by the Commission on Licensure. It could also have controlled medical education by the founding of its own school of medicine. Only later was the Society permitted to own property in the District of Columbia. Through the efforts of Dr. E. Y. Davidson and his colleagues the Society finally got a home of its own just about a century after its founding. What it means to have a home of one's own may be appreciated by those of you who have come to Washington with high hopes and no lease.

The outbreak of the Civil War found the City of Washington practically within the sound of gunfire. Indeed, Carl Sandburg tells of an occasion when President Lincoln, worn out by the constant demands upon him and the news of defeat after defeat, actually heard the sound of the guns and knew that Washington was about to fall. Nobody else heard the gunfire, so it must have been a hallucination, but it seemed very real. The War continued.

There was a dearth of equipment and supplies, a shortage of doctors, and an influx of people proportionately far larger than that which we observed here when World War II began. The churches of Washington were turned into hospitals, and during the summertime when casualties ran high, tent hospitals sprang up on the Mall and other broad open spaces. Eckington General Hospital was established near where Union Station now stands.

The Medical Society of the District of Columbia was no more and no less divided than was the rest of

the civilian population at that time. While Washington was the seat of the Union Government, it was at the same time a Southern city, and loyalties were strong and conflicting. The Society seems to have gone into an inactive stage during this period, since there are no minutes. Furthermore, although its twin sister, the Medical Association of the District of Columbia, continued to hold regular meetings, there is no reference in their minutes to the terrible conflict.

With the passage of years the Medical Society underwent the ebb and flow of activity that characterizes social as well as biologic organisms. But while living organisms have a rather characteristic life span for each species, social organisms have a way of rising to heights of influence during certain periods and of sinking back into quiescent phases at other times. Instead of ceasing to exist, they sometimes undergo division, sometimes become encysted, and sometimes develop new properties of adaptation to the environment. Social organisms develop new parts that perform specialized functions, making for survival and extension of influence in the community. The Medical Society belongs to the last class.

I have mentioned the building of a home for the Society. I could also mention the founding of the *Medical Annals of the District of Columbia*; the Annual Scientific Assembly, which is now meeting for the twentieth year; the reorganization of the Society in 1938 for the better transaction of its business, with Mr. Theodore Wiprud as its Secretary; the promotion of Group Hospitalization and, more recently, the founding of the Medical Bureau, and Medical Service of the District of Columbia.

It must be clear to those who look backward over the past few years that the Medical Society of the District of Columbia is a vital social organism and that this organism is still in the process of growth and development. At the same time, with past accomplishments, it is equally clear that there can be no standing still. When growth and development cease, the social organism enters a resting stage where it no longer has the ability to adapt itself to changing conditions.

All about us there are changes taking place in other social organisms such as the schools and the

* Address delivered at the Annual Dinner of the Society at the Hotel Statler, October 19, 1949, during the Twentieth Annual Scientific Assembly.

churches, the labor unions and industry, national and international political and commercial organizations, all obeying the general law of change or lose out. The men of vision who can foresee the direction that changes will take, and the men of action who can lead and inspire their fellow men, reaching toward the goal of increased effectiveness—these are the men we honor; these are the men we will follow.

It is trite to speak of Medicine at the Crossroads. Medicine has always been at the crossroads. Doctors everywhere have a peculiarly intimate relationship with their fellow men. They are sufficiently mature in their intellect and in their emotions so that they are not easily swayed by the demagogue. They are inclined to view humanity from the standpoint of the microcosm, and only in their writings or their fantasies do they pay attention to man in the mass. Since they are trained in highly specialized technics of their own calling, they are often unacquainted with the highly specialized technics of other callings, and hence are apt to be inattentive to the changes that are taking place in the thought processes of leaders in other skills and disciplines.

Here is where the Medical Society comes in. Among the membership of the Society there are a number of men who do possess additional skills and disciplines. There are doctors who are also lawyers, or writers, economists, social scientists, psychologists, yes, and a few financial experts. You have also noted that in the past, at least, some of the doctors have been outstanding athletes. And there are some who have married movie stars. I would stress the versatility of the doctor, the *Homo sapiens medicus*. E. D. Adrian, a number of years ago, stressed the importance of an investigator who was trained in two different disciplines so that he could work in the field between.

It is no small part of the function of the Medical Society to enlist the aid of members who possess additional skills, for in this way the challenge of changing social situations can be met and the Society informed, organized and led in the direction that will best maintain its usefulness to the community.

The Medical Society is grateful to those men, and women too, who devote their time and energies to the extension of this usefulness. They equip themselves with specialized knowledge; they ponder the problems under discussion; they meet with other committee members to define their aims and to

bring precision to their thinking. Their efforts are all too often witnessed only by a few pages of yellowing paper in the back files of committee reports. It is amazing sometimes to look back on those committee reports and to realize how far ahead of their times they were, how much of the future they had foreseen. Back in 1937 the Committee on Medical Care began energetically to devise a plan for prepayment medical care, but in 1940, a year after the plan was presented to the public, had to admit that there were no takers. The report ended upon a melancholy note: "While there may be a need for prepayment medical care, there is apparently no demand."

How fortunate it was that future committees of the Medical Society, taking up the same problem, could draw upon the thought and the skill of the former committee in order to evolve a plan which has found such ready acceptance on the part of the public!

The Medical Society of the District of Columbia is at present actively engaged in considering the problem of medical care. When the volume entitled "The Nation's Health" was published a year or so ago, physicians in large numbers pointed out many fallacies in the arguments. Some of these were theoretical, some were practical. They quickly saw the point, however, that unless they were able to develop some plan of their own, the proposed scheme for compulsory health insurance would in all probability be enacted. It was futile merely to object to a plan, no matter how bad they thought it was.

Bringing out their past deliberations and subjecting the proposals to closer scrutiny, therefore, they evolved a plan that has found favor both with the participating doctors and with the public. To find out just where the members of the Society stood in regard to the whole question of voluntary health insurance, a questionnaire was sent to all members of the Medical Society. When the returns were tabulated, they read as follows:

In favor of compulsory health insurance.....	21
In favor of voluntary health insurance.....	869
In favor of neither of the above.....	28

That the voluntary plan has achieved the approval of the citizens of the Washington area is indicated by the fact that there are now 590,000 people who are covered by subscribers' contracts of

various sorts. Furthermore, the varieties of contracts, adjusted to the needs and the desires of the individual policyholders, are decidedly more flexible than they would be under any compulsory plan, and the overhead that could easily have become a vast bureaucracy has been kept to a minimum.

The Medical Society of the District of Columbia has come a long way since it was charged with restraint of trade in the practice of medicine. There can be no doubt that this trying experience had the effect of making doctors decidedly more aware of changing trends of thought in the community. As a result, the Society, through its members, is engaged upon the study of new problems that are constantly coming up.

The Medical Society is not going around looking for trouble, but trouble is almost certainly coming its way, and speedily, on the wings of the Welfare State. When Bismarck sought to still the opposition in the new Germany he first brought the doctors under control. And Karl Marx insisted that socialized medicine was one of the building blocks of Communism.

Mere resistance to change is futile. It is Maginotism.

Change is of the essence, and learning from experience is a protective function that social as well as biologic organisms are obliged to exercise if they are to survive. But change in response to external situations betrays only a partial acceptance of these laws of change. You prick an ameba and it draws away; you shine a flashlight into the summer sky and the moths are drawn to it. Taxis, tropism, instinct, reaction, conditioned reflexes—these are too simple as explanations for change, especially in human beings and their organizations. Most of our energies are still directed toward restoring a state of equilibrium that has been upset by external or internal stresses. This evening you have overcome your natural shyness by the successful employment of the universal solvent. You have raised your blood sugar to a comfortable level by the notoriously pleasant method of dining. You are presently to stretch and contract the muscles that have been too long out of practice, and the irritation of the speaker's voice through the microphone will presently be changed to the soothing or exciting rhythms of the orchestra. Most of the things that we do serve to bring us back to a state of what Cannon

termed homeostasis. But there are other things that we do with the defined purpose of upsetting the status quo, of disturbing the balance. We are driven by something within us to try, to experiment, to climb out of the rut, and to find out what is going on outside. Is this a particular kind of homeostasis? Why should we want to climb a mountain or ride a motorcycle or swim the Channel? Why shouldn't we be content to stay at home and watch the fights on television?

Man in general, and the doctor in particular, is exceptionally endowed with this capacity to find out new things to do, and new ways of doing the old things. This applies also to the organizations which man in general and doctors in particular like to create. There is an inner urge, call it "Élan vital," call it libido, call it inspiration, or the Holy Spirit, that finds a certain peace of mind and spirit in seeking out ways to the better life. This is the path of progress, and the Medical Society this evening has cause to congratulate itself on the progress made in the past year.

BOOKS RECEIVED FOR REVIEW

Acknowledgment is made of the following book which has been received for review:

Operations of General Surgery, 2nd ed. THOMAS G. ORR, M.D., Professor of Surgery, University of Kansas School of Medicine, Kansas City, Kansas. Price, \$13.50. Pp. 890, with 1,700 step-by-step illustrations on 721 figures. Philadelphia: Saunders, 1949.

Acknowledgment is also made of the following reference books:

Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1948, with the comments that have appeared in the *Journal*. Chicago: American Medical Association, 1949.

New and Nonofficial Remedies—1949, containing descriptions of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1949. Issued under the direction and supervision of the COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION. Philadelphia: Lippincott, 1949.

Parergon, 3rd ed. Price, paper, \$5.00. Pp. 208, illustrated throughout. Evansville, Ind.: Mead Johnson & Co., 1949.



Our Living Past Presidents

EDWARD YOUNG DAVIDSON, M.D., President 1916

It was said of President Woodrow Wilson that his dynamic personality was due to three factors, that he was a Presbyterian, a native of Virginia, and of Scotch ancestry. These same qualities must have been likewise operative in determining the character and achievements of Dr. Edward Young Davidson: his grandfather was the immigrant from Scotland and imparted strong Scottish characteristics to his progeny; his family was intensely Presbyterian in faith; and he was born in Virginia. His Virginianity indeed stemmed from lineal descent on his mother's side through all the Virginia generations from Henry Spilman, one of the first Virginia immigrants of 1607 and an associate of Captain John Smith.

On the tenth day of April in the year 1861 two events occurred that were of momentous consequence. On that historic day the first demand was made for the surrender of Fort Sumter; and on that day also, in Petersburg, Virginia, was born Edward Young Davidson, an event of insignificance then, but fraught with epochal importance in the history of the Medical Society of the District of Columbia. Dr. Davidson and the War for Southern Independence were born on the same day. On his fourth birthday that war came to a shattered end in his very birthplace, with his father a prisoner of war in the North, and with him and his mother living in a tent in the country, evacuees from embattled Petersburg.

Since his graduation in medicine from the Columbian Medical School in 1894 Dr. Davidson has been engaged in the practice of medicine in East Washington, in the shadow of the Nation's Capitol. He became a member of the Medical Society in 1906, and after the short period of ten years he became its President. In his presidential address in December, 1916, he first broached the project of the construction of a building for

the Society; and it was through his energy and perseverance that that enterprise was pushed to a successful conclusion.

The outstanding feature of Dr. Davidson's personality is his poetic insight and spiritual temperament; and this quality it was that inspired and enabled him to perform the supreme service which he rendered to the Medical Society in achieving the construction of its home building. It was in a poetic atmosphere that Dr. Davidson was born and reared, an environment which must have largely shaped the development of his spiritual character. He was prophetically given the forename Edward Young, after the celebrated poet; and actually during his early years he was in his home circle familiarly called by the nickname "Night Thoughts," from the title of the great poem by that author. Dr. Davidson is adept in the expression of lofty sentiments; and he has characteristically published an anthology, "Gleanings of a Friendship," containing an inspiring collection of literary gems. A dreamer of dreams, when the idea of a building for the Society first entered his mind, he saw the invisible. He is, however, no mere visionary, but a man of stubborn Scottish forcefulness, a doer of deeds; and in achieving his purpose he did the impossible. The story of the construction of its home building has been detailed in the publications of the Society. The home has been of inestimable value in the service, operation, morale, and prestige of the Society, and a contribution to its welfare unsurpassed in its history. It is the *opus magnum* of Dr. Davidson's life. The Society has registered its recognition and appreciation of its debt to him by a number of tributes and memorials: the endowment of the biennial Davidson Lecture, a citation for meritorious service, and the procurement of his portrait for permanent display in its office. These will recall to endless future generations the epochal service of Dr. Davidson in behalf of the Society; and indeed, in line with the famous epitaph to the architect Sir Christopher Wren in Saint Paul's Cathedral, *Si monumentum requiris, circumspice*, our building itself will be a permanent memorial to him.

Coming to Washington in 1885, Dr. Davidson married Ella Gertrude Goldsmith, November 30, 1886; she died July 24, 1941. He has an interesting family, extending over four generations, which he is happily able to survey with devoted pride. A great sorrow came into his life in 1925 from the death, after a sudden acute illness, of an idolized son, Edward Young Davidson, Jr., an electrical engineer of brilliant ability and promise. In this affliction he had the openly expressed sympathy of his fellow members of the Medical Society.

Dr. Davidson is a man of sternly conscientious integrity; and there have been occasions in his life when he jeopardized his prospects by unbending adherence to his sense of duty and honor, and refusal to countenance or engage in actions which he felt to be wrong. He is a hero worshipper and a lover of mankind. On the day of the burial of his prototype President Wilson he composed an encomium expressive of his admiration; and that eulogy was recently resurrected and read at a memorial service, and printed in the *Congressional Record* (January 18, 1949). He is even an ardent admirer of President Lincoln, and has accumulated a noteworthy collection of Lincolniana. He has been keenly devoted to his friends, and, a master of eulogistic expression, he has on many occasions presented glowing tributes to them. He is a member and Past Master of the Masonic Hope Lodge. He has an unusual accomplishment, micrography; he is able to inscribe the Lord's Prayer in a space the size of a nickel.

With all his exaltation of spirit Dr. Davidson has a keen zest for life; and he is not so dour a Scotsman but that he is a congenial companion and entertaining conversationalist. With a small coterie of congenial cronies he has often found relaxation in piscatorial conviviality in his hideout on Chesapeake Bay.

Although within dating range of nonogenarianism, it is impossible to associate the idea of age with Dr. Davidson. He may have had his share, or more, of bodily ailments; but internally his spirit is as youthful and active as it ever was, and "trailing clouds of glory." Edward Young Davidson is ageless.

JOHN B. NICHOLS, M.D.

CHILD HEALTH SERVICES IN THE DISTRICT OF COLUMBIA AND THE GREATER METROPOLITAN DISTRICT

The recently published report of Child Health Services in the District of Columbia and the Greater Metropolitan District is a part of a Nationwide study made by the American Academy of Pediatrics with the coöperation of the United States Public Health Service and the Children's Bureau.

The purpose of the study was the securing of factual data upon which to base an enlightened program for the improvement of child health services throughout the Nation. The Academy committed itself to the undertaking when, at its annual meeting in 1944, it unanimously accepted the report of a joint committee of the American Pediatric Society, the Academy, and the Maternal and Child Health Advisory Committee of the United States Children's Bureau.

The magnitude of the project called for serious planning by the Central Committee for the Study. At regional meetings in San Francisco, Chicago and Washington, D. C., state study committees participated in discussions from which were finally evolved plans of procedure. Parts of the study, more especially those relating to pediatric education and training, were to be done at a national level by the Central Committee, while the survey of existing child health services was left to state study committees to be done at state level. In the interest of uniformity and to make possible essential comparisons, data were to be compiled on 18 separate schedules covering all phases of the study. These schedules, completed by the state study committees, were to be forwarded to the Central Committee for statistical evaluation, upon which the state reports were to be made.

This report represents a summary of the survey of child health services available to children under 15 years of age in the District of Columbia and the three contiguous counties in Maryland and Virginia, comprising the Greater Metropolitan District. It should be emphasized, however, that the data upon which this report is based were collected between mid-March 1946 and the end of August 1946, and represents, therefore, the findings for that period only. It is recognized that the situation has changed materially in the period elapsed.

The information gleaned from the 18 schedules has been presented in five chapters under the following titles:

1. General Descriptive Data
2. Total Volume of Care
3. Private Practice
4. Community Health Services
5. Hospital Facilities and Services for Children

CHAPTER I. GENERAL DESCRIPTIVE DATA

General information shows the land area of the District of Columbia to be 61 square miles, that of the Greater Metropolitan District, 1,072 square miles, with a population of 898,000, estimated as of July 1, 1948 for the former, and 1,205,220 for the latter, estimated as of April 1947.

In 1940 children under 15 years of age made up over 17 per cent of the number in the District of Columbia and over 25 per cent in the 3 Counties. The national average was 25 per cent. The proportion of Negro children in the District of Columbia was nearly three times greater than in the 3 Counties.

During the period 1942 to 1948 the birth rate in the District of Columbia increased 33 per cent or 10 per cent more than in the United States as a whole. Almost 95 per cent of live births were in hospitals, but even with this excellent showing 14 states reported a higher percentage. The national figure was 82 per cent. Negro births in hospitals were 12 per cent lower than white.

Infant mortality, neonatal mortality, mortality from prematurity, and maternal mortality all decreased very materially in the six-year period 1942 to 1948 with the Negro rate always higher than that for the white.

In 1940 the per capita income in the District of Columbia was \$1,056.00 while in the 3 Counties it was \$515.00. The figure for the United States was \$563.00. A very significant increase was shown in the period 1944 to 1946, \$1,762.00 for the District of Columbia. The national figure for the same period was \$1,141.00.

CHAPTER II. TOTAL VOLUME OF CARE

A summary of the amount of medical care given to children in the District of Columbia and the Greater Metropolitan District based upon the number of children per 1,000 under care in the office, homes, clinics and hospitals on an average day shows 25 in the former and 19 in the latter. This compares

favorably with the figures of the highest state, 23.

Almost one third of the children other than newborns were receiving health supervision rather than sick care. An overwhelming majority of the health supervision was being given in the home and office.

As in the case of medical care, the volume of dental care was measured by the number of children per 1,000 receiving such care on an average day. In the District of Columbia the figure was 7, in the Greater Metropolitan District, 5. The District of Columbia figure was exceeded by only 2 states. (Note that this figure was incorrectly given in the full report.)

CHAPTER III. PRIVATE PRACTICE

There were 1,098 physicians in private practice in the District of Columbia of whom 939 were white and 169 Negro. In the District of Columbia the proportion of children per physician, 135, was better than in the 3 Counties or in any of the 48 states.

Of the 1,098 physicians in private practice only 5 per cent or 52 were pediatricians, 46 per cent were general practitioners, and 49 per cent specialists other than pediatricians. In the 3 Counties 72 per cent of the 235 physicians were general practitioners with 7 per cent pediatricians and 21 per cent other specialists.

In the District of Columbia the number of children under care by private physicians in the office, home or hospitals was 20 per 1,000 per day, a figure exceeded by 3 states. The figure for the Greater Metropolitan District was 17.

As was realized, general practitioners made almost twice as many child visits as did pediatricians, but whereas the former made the larger proportion of their visits to sick children, with the latter the reverse was true. Three fifths of the child visits occurred in physicians' offices, the remainder being equally divided between the home and hospital.

There was evident need for more hospital training in pediatrics for the general practitioner, responsible as he is for the majority of child care.

There were 609 dentists in private practice in the District of Columbia, representing one dentist for 244 children, a proportion not equalled by any other state. The preventive program as indicated by the ratio of fillings to extractions was not surpassed.

CHAPTER IV. COMMUNITY HEALTH SERVICES

In the District of Columbia and the 3 Counties the respective Health Departments provided the majority of well-child care, with attention equally divided between infants and preschool groups. While the number of visits per 1,000 children under 5 years in the District of Columbia was relatively high as compared with the 3 Counties, even those for the Greater Metropolitan District compared favorably with the best of similar communities.

Immunization for smallpox, diphtheria and whooping cough, but not for tetanus, was given routinely by all well-child conferences. In the District of Columbia almost twice as many sessions were held for Negro children as for white.

Public health nursing services were provided by both voluntary and official agencies in the Greater Metropolitan District though the number of nurses available was below the standard of 1 to 500 children generally accepted as a criterion.

The service was complete as to school health nursing, bedside care and home visits in the District of Columbia and two of the 3 Counties. Not all of the conferences, however, provided certain auxiliary services, as consultant nutritionist, psychologist, psychiatrist and social worker.

Mental hygiene services were limited both with respect to staff and amount of care available for children.

The major portion of services for physically handicapped children (96 per cent) was given by official agencies. On an average day 36 physically handicapped children were seen in these clinics. All 3 Counties had clinics offering orthopedic service.

School health services were the joint responsibility of official health and education agencies and as in the mental hygiene services, there seemed to be a definite shortage in staff. In the District of Columbia 32 private practitioners constituted the staff, only 2 of whom were pediatricians.

The amount of dental clinic care available was high in proportion to other states, but the filling extraction ratio was not as good as in private practice.

The District of Columbia immunization rate for diphtheria and smallpox compared favorably with other cities, but that for whooping cough was low.

CHAPTER V. HOSPITAL FACILITIES AND SERVICES
FOR CHILDREN

The hospitals included in this study were limited to those caring for children or newborn infants. Institutions with less than five beds for regular inpatient care and Federally-owned hospitals were excluded.

In the District of Columbia there were 523 beds reserved for children (3.5 per 1,000 children), in the 3 Counties, 44 beds (0.4 per 1,000 children). Excluding the District of Columbia the state with the highest ratio was 2.4. The national ratio was 1.2. Negro children were not admitted to 7 of the District of Columbia hospitals, nor to 3 in Prince Georges County. There were 4 hospitals of 100 to 250 beds each to which 80 per cent of all children hospitalized were admitted.

All but two smaller hospitals in the Greater Metropolitan District were registered by the American Medical Association, but important characteristics of staff and facilities were lacking in institutions handling a substantial percentage of admissions. The same was true to a lesser degree in the case of facilities for the care of the newborn in hospitals admitting maternity cases.

Five hospitals in the District of Columbia and 2 in the 3 Counties admitted acute poliomyelitis cases. Other special services, as for mentally deficient children and those with tuberculosis, were limited.

Outpatient care for children was available in 9 hospitals in the District of Columbia and in 2 in the 3 Counties (see table 1). While there were 19 special clinics, i.e., allergy, cardiology, orthopedic, etc., in connection with these departments, such special clinics were not to be had in all. Social service was available in only 8 of the 17 general hospitals in the District of Columbia.

Complete recommendations follow:

The total maternal mortality rate in the District of Columbia should be further reduced. Although the rate for white women was low there was a relatively high rate for Negro women. Every effort should be made to identify the causes for the higher Negro maternal mortality rate and to correct them.

A concerted effort should be made to reduce the infant mortality rate in the District of Columbia, particularly the neonatal mortality rate and that for premature infants. A city-wide program for improving the care of premature as well as full-term infants should be developed jointly by the Health Department, medical societies, and hospitals.

Since general practitioners care for a large number of children in the District of Columbia and in the 3 Counties, more opportunity should be afforded for undergraduate and graduate instruction in pediatrics. These facilities should be made available to all physicians.

Some plan should be made for house officers in hospitals lacking pediatric services to obtain pediatric training and experience during their hospital term.

The well-child conference services should be extended by opening new centers to meet the needs of all children, and the Health Department and voluntary agencies should supplement and correlate their respective activities in this field. All physicians who staff the conferences should have had training in pediatrics.

Consultation services of nutritionists, psychologists and psychiatrists should be made available for the Health Department conferences. An adequate number of social service workers should be provided for both voluntary and official agencies to deal with the social aspects of health and medical care. Until such time as all conferences, official and voluntary, have complete services a demonstration conference center might be set up to serve as a child health educational center for general practitioners, hospital internes and medical students.

Immunization for tetanus should be made available at all official and voluntary child health conferences.

The number of public health nurses should be increased in the District of Columbia and the 3 Counties to meet public health standards. Nurses should be appointed who have had training in public health nursing.

The study shows that mental hygiene clinic services for children should be developed further. It is realized that although the situation today is improved, it is still far from satisfactory.

Information obtained in this study was insufficient to be able to state whether or not the clinic services provided for physically-handicapped children were adequate in relation to the number of children suffering from various handicapping conditions. From the data obtained the number of clinic visits per patient in the District of Columbia appeared to be low, particularly those of Negro children. It is important that official and voluntary facilities for the care of handicapped children be supplemented and correlated in order to provide a well-rounded program. It is recommended that pediatricians play a larger role in the voluntary agencies' programs than appears to be the case.

From the data available in regard to school health services it appeared that the number of physicians was very small in proportion to the number of school children. Data were not available in regard to the proportion of the nurses' time given to school work. The program for maintaining the health of school children needs further study with a view to expansion. The need for provision of guidance service in the schools should be pointed out.

There is need for more dental clinics, particularly for Negro children. The preventive dentistry program should be augmented by increasing the number of preschool children who are receiving dental care. The study showed that this program was not as satisfactory as would be expected in a large city.

TABLE 1
Data Regarding General Hospitals as Included in This Study

COUNTY	NAME OF HOSPITAL	PATIENTS BY RACE	NUMBER OF BEDS		CHILD ADMIS- SIONS	FOR NEWBORN INFANTS		NUM- BER OF BIRTHS	OUTPATIENT DEPARTMENT		ADMIT POLIOMY- ELITIS FOR CARE
			Total	Set aside for children		Bassinet	Incubators		Any	Pedi- atrics	
District of Columbia	Adams Hospital	Negro	13	0	12	4	1	42	No		No record
	*Burwell Private Hospital	Negro	12	0	11	4	1	100	No		No record
	Central Dispensary and Emer- gency Hospital	All	325	25	147	†	No record	0	Yes	No	No
	Children's Hospital of the Dis- trict of Columbia	All	250	250	7,734	†	8	0	Yes	Yes	Yes
	Columbia Hospital for Women	All	125	†	0	93	3	3,428	Yes	No	†
	Doctors Hospital	White	245	0	416	59	2	1,285	No		No
	Eastern Dispensary and Casu- alty Hospital	All	100	8	153	†	No record	0	Yes	No	No
	*Theodora Snow Memorial Hos- pital of Florence Crittenton Home	White	80	†	0	16	1	134	No		†
	Freedmen's Hospital	Negro	498	53	584	54	9	2,138	Yes	Yes	No
	Gallinger Municipal Hospital	All	1,414	134	1,875	129	12	2,413	Yes	Yes	Yes
	Garfield Memorial Hospital	All	363	†	0	109	10	3,133	No		†
	Georgetown University Hos- pital	All	235	8	156	60	3	1,727	Yes	Yes	No
	George Washington University Hospital	White	90	†	0	23	2	771	No		†
	National Homeopathic Hospital	White	61	0	77	23	2	414	No		No
	Providence Hospital	White	313	31	1,245	64	12	2,824	Yes	Yes	No
	Sibley Memorial Hospital	White	258	14	469	82	14	2,967	No		No
	Washington Sanatorium and Hospital	White	201	0	269	30	2	677	Yes	No	Yes
District of Columbia, Total			4,583	523	13,148	750	82	22,053			
Montgomery Co., Md.	Suburban Hospital	All	102	0	590	26	No record	610	Yes	Yes	No
	Montgomery County General Hospital	All	40	0	275	14	No record	246	No		No
Prince Georges Co., Md.	Eugene Leland Memorial Hos- pital	White	84	7	375	21	2	378	No		No
	Prince Georges General Hos- pital	White	102	8	613	19	3	572	Yes	Yes	No
	Warren Hospital	White	16	0	87	8	1	116	No		No record
City of Alexandria	Alexandria Hospital	All	164	13	767	52	6	1,270	No	No	No
Arlington Co., Va.	Arlington Hospital	All	115	16	914	23	3	643	No	No	No
Three Counties, Total			623	44	3,621	163	15	3,835			

* Not registered by AMA.

† No children admitted.

‡ No maternity service.

REMINDER

PHYSICIAN VETERANS OF WORLD WAR II

The fourth annual Pearl Harbor Night dinner will be held Wednesday, December 7, 1949, in the Sapphire Room of the Mayflower Hotel. Cocktails at seven, dinner at eight. Charge includes all beverages. An outstanding speaker has been invited to address the guests.

This engagement will not conflict with any activity planned for the AMA Interim Session.

All honorably discharged physician-veterans are invited.

Information and reservations may be obtained from the Banquet Chairman, Dr. Warren B. Burch, Atlantic 4566, or the Secretary-Treasurer, Dr. Eugene J. McDonald, Sterling 4353.

The number of beds reserved for children in the District of Columbia hospitals compares favorably with the average for the United States. These beds are, however, largely concentrated in two hospitals. It is obvious that in the 3 Counties there is need for more hospital beds for children and particularly for Negro children.

Findings of the study indicate need for improving pediatric and newborn infant services in the hospitals in the District of Columbia and in the 3 Counties. It is recommended that all hospitals recognize standards for newborn infant and pediatric care and that they provide facilities for children separate from those for adults.

It is recommended that the hospital and clinic care of poliomyelitis cases be given careful review with regard to (1) completeness of the program not only for handling of acute cases but for continuity of care during the convalescence and reconditioning periods; (2) methods for handling epidemics so that hospitals admitting acute cases of poliomyelitis will not have services for other acute cases disrupted.

Data obtained in regard to special hospital facilities for children were somewhat meager. It was apparent, however, that there is need to provide for a greatly increased number of admissions to the District Training School for mental defectives. The program should be so developed as to provide for separation in age groups as well as according to the potentialities of the children for training. The whole subject of the care of tuberculosis children in the District needs careful study. Although a need for more beds for children at Glenn Dale Tuberculosis Sanatorium was not shown by the data, experience has shown that there is need to make more beds available. Provisions should be made for general convalescent care for Negro children. Such care is provided only for Negro children who are residents of the District of Columbia who

suffer from cardiac or orthopedic conditions. Maryland and Virginia have limited facilities available in Baltimore and Richmond respectively. The possibilities of foster home care for mentally-handicapped children and for convalescent care should be considered.

In regard to hospital outpatient departments, facilities for children should be separate from those for adults. In those outpatient departments which do not provide special clinics, such services should be made available by cooperative arrangements with outpatient departments of other hospitals.

Social service is essential to effective medical care and public health programs. Such services are inadequate in the District of Columbia and the need to provide or supplement them is urgent.

The Executive Committee of the Academy in the District of Columbia with the valued assistance of Miss Elma Phillipson, Director of Social Service at the Children's Hospital, served as the study committee.

They received the full cooperation of the Medical Society of the District of Columbia, the Medico-Chirurgical Society of the District of Columbia, the District of Columbia Dental Society, the Robert T. Freeman Dental Society, hospital administrators, individual physicians and dentists, and all community health agencies, both voluntary and official.

Very necessary financial assistance was contributed by the Fellows of the American Academy of Pediatrics in the District of Columbia, the local chapter of the National Foundation for Infantile Paralysis, Inc., Mr. Clark Diamond of the Chestnut Farms Dairy, and the Academy's Headquarters for the Survey.

The Children's Hospital furnished office space with telephone and clerical help throughout the entire period of the study.

The Fellows of the Academy in the District of Columbia wish to express their grateful appreciation to these and to all the other individuals and groups who contributed so generously to the study.

Additional information concerning the study may be secured from

EDGAR P. COPELAND, M.D.

*Chairman for the District of Columbia,
The American Academy of Pediatrics*

c/o Children's Hospital
Washington 9, D. C.

AMA CLINICAL SESSION IN WASHINGTON

The scientific meetings of the Third Clinical Session of the American Medical Association will be held in the National Guard Armory, December 6 to 9, 1949; administrative headquarters will be in the Hotel Statler.

In the September issue of the *MEDICAL ANNALS* was published the names of the Local Committee on Arrangements, headed by Dr. Oscar B. Hunter. Since the publication of the personnel of these committees, Dr. Hunter has announced the appointment of Dr. Coursen B. Conklin and Dr. Herbert P. Ramsey to the General Administrative Committee, and Dr. Walter A. Bloedorn and the Reverend Paul A. McNally, S.J., to the Advisory Committee.

Many Washington physicians, members of the District Medical Society, will serve as presiding officers for the scientific meetings. Among them are Drs. Maurice Protas, John A. Reed, Louis K. Alpert, Samuel Benjamin, George Nordlinger, J. Bay Jacobs, Robert H. Barter, Howard P. Parker, A. A. Marchetti, John W. Walsh, Charles A. Millwater, William F. Burdick, John A. Washington, William S. Anderson, Milton M. Greenberg, John E. Cassidy, H. H. Leffler, Ruell A. Sloan, Eugene R. Whitmore, Richard E. Palmer, Theodore Winship, J. Winthrop Peabody, A. Barklie Coulter, John W. Trenis, Sol Katz, Daniel L. Finucane, Frank S. Ashburn, Donald Stubbs, William L. Howell, Z. M. Lebensohn, Harvey Tompkins, Addison M. Duval, Pearce Bailey, George N. Raines, Clayton

B. Ethridge, John M. Evans, Irving W. Winik, Benjamin Manchester, Albert D. Kistin, Bernard J. Walsh, Roger M. Choisser, Lester Neuman, Montgomery Blair, Lewis K. Sweet, Leonard Peterson, Charles P. Ryland, Charles McEnerney, Donald Ingham, Joseph F. Belair, Eugene J. McDonald, Aubrey O. Hampton, Peter D. Comanduras, O. Benwood Hunter, Jr., Paul Kiernan, William Earl Clark, Matthew White Perry and Maurice H. Friedman.

The AMA Clinical Session is intended primarily for the general practitioner. Leading educators from all parts of the United States will address the Session. All phases of medical problems which confront the general practitioner will be covered, and the program has been arranged with enough repetition so that the physician can plan his time to the best advantage and without undue conflict.

The scientific program, which is an impressive one, contains a generous sprinkling of participants from Washington, D.C., with Medical Society members appearing as speakers on each subject to be presented with the exception of poliomyelitis. Since the complete program appears in the *Journal of the American Medical Association* and will appear in the official programs to be secured at the Registration Section, only the participants who are members of the Society are listed herewith together with their dates of appearance on the program and titles of their papers.



THE NATIONAL GUARD ARMORY, WASHINGTON

All scientific meetings and demonstrations during the Third Annual Clinical Session of the American Medical Association, December 6-9, will be held in the Armory. The scientific and technical exhibits will be on display in the main arena.

DIABETES

- December 7 "Hypoglycemias," Samuel Benjamin, M.D.
 "Acidosis and Coma—Diagnosis and Treatment," Joseph Fazekas, M.D.
- December 8 "Anesthesias in Diabetes," Louis K. Alpert, M.D.
 "Pregnancy and Diabetes," Lawrence J. Thomas, M.D.
- December 9 "The Insulins," Samuel Sugar, M.D.
 "Additional Aids for the Good Management of Your Diabetic," Maurice Protas, M.D.

PROBLEMS OF DELIVERY

- December 6 "Indications for Cesarean Section," George Nordlinger, M.D.
- December 7 "Uterine Inertia," Raymond T. Holden, M.D.
 "Breech Delivery" (Manikin), William T. Lady, M.D.
 "Management of Occiput Posterior," J. Bay Jacobs, M.D.
 "Infant Resuscitation," Donald Stubbs, M.D.
 "Rupture of the Uterus," John Parks, M.D.
 "Soft Tissue Obstruction of the Birth Canal," Robert H. Barter, M.D.
- December 8 "Management of Multiple Pregnancy," Jean E. Paquin, M.D.
 "Forceps Delivery," Samuel M. Dodek, M.D.
 "Management of the Third Stage," Howard P. Parker, M.D.
 "Breech Delivery" (Manikin), Stafford Hawken, M.D.
 "Management of Occiput Posterior," James A. Dusbabek, M.D.
 "Obstetric Anesthesia," Charles S. Coakley, M.D.
 "Postpartum Hemorrhage," A. A. Marchetti, M.D.
- December 9 "Management of Premature Labor," Peter Commings, M.D.
 "Forceps Delivery" (Manikin), John W. Walsh, M.D.
 "Infant Resuscitation," Joseph Kreiselman, M.D.

PEDIATRICS

- December 6 "Premature Care," George Maksim, M.D.
 "Diagnosis and Management of Cyanosis

of the Newborn Infant," William F. O'Donnell, M.D.

- December 7 "Surgical Aspects of Gastrointestinal Obstruction in the New Born and Infant," Robert J. Coffey, M.D.
 "Medical Management of the Surgical Child," Frederic G. Burke, M.D.
 "Pediatric Anesthesia," Charles E. Fierst, M.D.
 "The Physician's Attitude Toward the Adolescent," Dorothy Donley-Dowd, M.D.
 "Management of the Allergic Child," Richard H. Todd, M.D.
- December 8 "Serious Ocular Affections of the New Born," Frank D. Costenbader, M.D.
 "Pediatric Problems in Orthopedics," Carl Berg, M.D.
 "The Tonsil and Adenoid Problem in Children," Edgar P. Copeland, M.D., and Allan E. Walker, M.D.
 "Diagnostic Methods Used in the Neurological Study of Children," James W. Watts, M.D.
 "Modern Trends in Infant Feeding," Preston A. McLendon, M.D.
 "Immunization Procedures in Childhood," William A. Howard, M.D.
 "Diagnosis and Treatment of Tuberculosis in Children," Daniel L. Finucane, M.D.
- December 9 "Demonstration of Replacement Transfusion Technic in Infants," John B. Ross, M.D.
 "Diagnosis and Management of Rheumatic Fever," Mark P. Schultz, M.D.

LABORATORY DIAGNOSIS, INCLUDING
EXFOLIATIVE CYTOLOGY

- December 6 "Laboratory Control of Dicumerol Therapy," E. Clarence Rice, M.D.
 "Biopsy Methods," Thomas M. Peery, M.D.
- December 7 "Spinal Fluid in Disease," Arthur A. Morris, M.D.
 "Basal Metabolism Rate," Lester Neuman, M.D.

PHYSICAL MEDICINE AND REHABILITATION

- December 7, 8 and 9 "Exercise as a Therapeutic Agent in General Practice," Charles S. Wise, M.D.

"The Place of Physical Devices and Apparatus in General Practice," A. B. C. Knudson, M.D.

"Physical Medicine in Peripheral Vascular Disease," Isadore Levin, M.D.

VIRUS AND RICKETTSIAL DISEASES

December 9 "Therapy of Rocky Mountain Spotted Fever," Sydney Ross, M.D.

DISEASES OF THE CHEST

December 6 "Pulmonary Infarction," Hugh H. Hussey, M.D.

December 7 "Hematogenous Tuberculosis with Emphasis on the Value of Bone Marrow Study for Diagnosis," Sol Katz, M.D.
 "Lipoid Pneumonia," A. O. Hampton, M.D., Theodore Winship, M.D., Edward B. McCabe, M.D., and Edgar W. Davis, M.D.

"A Panel on the Diagnosis and Treatment of the Pneumonias," Harry F. Dowling, M.D., Thomas McPherson Brown, M.D., and Mark H. Lepper, M.D.

December 8 "Sarcoidosis," Sol Katz, M.D.
 "Differential Diagnosis of Chest Pain," Hugh H. Hussey, M.D.

December 9 "The Surgical Treatment of Lung Abscess," Roy G. Klepser, M.D.

FLUID BALANCE IN HEART FAILURE, IN RENAL IMPAIRMENT AND DEHYDRATION, AND IN SHOCK

December 6 "Upset Physiology in Shock," Weston Bruner, Jr., M.D.

"The Clinical Diagnosis of Shock," Donald Stubbs, M.D.

"Laboratory Aids in the Diagnosis and Treatment of Shock," Richard Fischer, M.D.

December 7 "Cardiac Mechanisms in Fluid Balance," Jack Kleh, M.D.

"Pulmonary Edema," James Feffer, M.D.

"The Clinical Features of Acute Renal Impairment," William P. Herbst, M.D.

NEUROLOGY AND PSYCHIATRY

December 6 "Parkinsonism; the New Approaches," René Cailliet, M.D.

"Home and Office Treatment of Neurosyphilis," T. C. Fong, M.D.

December 7 "What Is Psychotherapy?" Norman Q. Brill, M.D.

"Psychiatric Aspects of the Medical Examination," Leon Yochelson, M.D.

"The Medical Patient Who Won't Cooperate," Jerome D. Frank, M.D.

"What Is Psychosomatic Medicine?" Daniel Blain, M.D.

"The General Practitioner as the Front Line Psychiatrist," Addison M. Duval, M.D.

"When and How to Refer the Patient Who Needs Psychiatric Treatment," Z. M. Lebensohn, M.D.

"What to Do with the Acute Psychiatric Emergency," Harvey J. Tompkins, M.D.

December 8 "Highlights of the Neurologic Examination," Paul Chodoff, M.D.

"Today's Outlook for the Epileptic Patient," Pearce Bailey, M.D.

"Migraine and Other Headaches," Lester Blumenthal, M.D.

"Of What Use Is the EEG?" Harold Stevens, M.D.

"What to Do with the Acute Psychiatric Emergency," Oscar Legault, M.D.

"Physical Complaints Masking Depression," George N. Raines, M.D.

"Electroshock Therapy," Harold Stevens, M.D.

December 9 "What Is Psychotherapy?" Seymour J. Rosenberg, M.D.

"The General Practitioner as the Front Line Psychiatrist," Winfred Overholser, M.D.

CARDIOVASCULAR DISEASE, INCLUDING HYPERTENSION AND PERIPHERAL VASCULAR DISORDERS

December 6 "Heart Disease: Practical Utilization of Differential Diagnostic Procedures," Albert D. Kistin, M.D.

December 7 "Bacterial Endocarditis: Diagnosis and Therapy," Harry F. Dowling, M.D.

"Acute Myocarditis: Clinical Aspects—Diagnosis and Treatment," Bernard J. Walsh, M.D.

December 8 "Coronary Heart Disease: Recognition of Its Various Clinical Manifestations," Clayton B. Ethridge, M.D.

"Peripheral Vascular Disorders: Diagnosis and Medical Therapies," Andrew G. Prandoni, M.D.

- December 9 "Surgical Procedures in Peripheral Vascular Disorders," J. Ross Veal, M.D.
 "Neurocirculatory Asthenia and Cardiac Neurosis," Irving W. Winik, M.D.
 "The Heart in Endocrine Disorders and Dietary Deficiencies," John M. Evans, M.D.
 "Heart Disease and Pregnancy: Management," Benjamin Manchester, M.D.

CANCER

- December 6 "The Local Health Department in the Control of Cancer," Charlotte Donlon, M.D.
 "The Family Physician in the Control of Cancer," R. Lee Spire, M.D.
 "The Diagnosis of Tumors of the Breast," Charles F. Geschickter, M.D.
 "The Surgical and Radiologic Treatment of Cancer of the Breast," Calvin T. Klopp, M.D.
 December 7 "The Surgical Treatment of Cancer of the Intestine," Garnet W. Ault, M.D.
 "The Surgical Treatment of Cancer of the Uterus," J. K. Cromer, M.D.
 "The Radiation Treatment of Cancer of the Uterus," Fred S. Coe, M.D.
 December 8 "The Diagnosis and Treatment of Carcinoma of the Lung," Brian B. Blades, M.D.
 "The Practitioner's Obligation in the Care of the Advanced Cancer Patient," Herbert S. Gates, M.D.

HEMATURIA

- December 7 "Hematuria and Prostatism," R. M. LeComte, M.D.
 "Hematuria and Calculus," C. E. Bagley, M.D.
 "Hematuria and Infection," T. C. Thompson, M.D.
 "Medical Aspects of Hematuria," Harold Jeghers, M.D.
 December 8 "Hematuria and Traumatism," Hilbert Sabin, M.D.
 "Hematuria and Prostatism," H. Goldberg, M.D.
 "Hematuria and Calculus," Dabney Jarman, M.D.
 "Hematuria and Infection," F. A. Reuter, M.D.

- December 9 "Medical Aspects of Hematuria," T. J. Abernethy, M.D.
 "Hematuria and Prostatism," H. N. Dorman, M.D.
 "Hematuria and Calculus," L. R. Culbertson, M.D.
 "Hematuria and Infection," Edward Ferguson, M.D.
 "Medical Aspects of Hematuria," Arnold McNitt, M.D.

ARTHRITIS

- December 7 "The Early Diagnosis of Rheumatoid Spondylitis," Thomas McPherson Brown, M.D.
 "Classification and Basic Differential Points of Principal Rheumatic Diseases," Walter Myers, M.D.
 "Medical (Including Physical Medical) Management of Rheumatoid Spondylitis Patient," Charles Wise, M.D.
 "Orthopedic Management of Rheumatoid Spondylitis Patient," Milton C. Cobey, M.D.
 December 8 "Differential Diagnosis of Painful Conditions of Shoulder," Darrell Crain, M.D.
 "Management of Painful Conditions of Shoulder," William Tobin, M.D.
 "Management of Osteo-arthritic Patient," J. Lawn Thompson, Jr., M.D.
 December 9 "The Clinical Patterns of Rheumatoid Arthritis," Thomas McPherson Brown, M.D.
 "X-ray Picture of Rheumatoid Arthritis," George Wyatt, M.D.
 "Medical Management of Patient with Rheumatoid Arthritis," Darrell Crain, M.D.
 "Physical Medicine in Rheumatoid Arthritis," Isadore Levin, M.D.
 "Orthopedic Management of Patient with Rheumatoid Arthritis," Carl Berg, M.D.

DERMATOLOGY AND SYPHILOLOGY

- December 6 "Clinical Diagnosis of Syphilis," Frank J. Eichenlaub, M.D.
 December 8 "Treatment of Pyogenic Infections," Walter O. Teichmann, M.D.

X-RAY DIAGNOSIS AND TREATMENT

December 7 "Radium and Roentgen Therapy in the Control of Vaginal Bleeding: Indications and Accomplishments," Ralph M. Caulk, M.D.

"The Problem of Endometriosis: (a) from the Standpoint of the Surgeon," Garnet W. Ault, M.D.; "(b) from the Standpoint of the Gynecologist," Henry L. Darner, M.D.; "(c) from the Standpoint of the Radiologist," Karl C. Corley, M.D.

"X-ray Examinations as an Adjunct in Gynecology and Obstetrics," Fred O. Coe, M.D.

December 8 "Mucosal Pattern of the Stomach," Willy E. Baensch, M.D.

"Tinea Capitis: Microsporon Audouini," Isidore Lattman, M.D.

"Early Recognition and Prevention of Cancer of the Colon: Clinical, Proctoscopic and Roentgenological Approach," George M. Wyatt, M.D., and Ralph M. Caulk, M.D.

"The Radiological Examination Indicated for Localized and Referred Abdominal Pain," Alfred A. J. Den, M.D., and Thomas Bradley, M.D.

December 9 "The Diagnosis and Treatment of Bronchiectasis," Arthur C. Christie, M.D., and Frank S. Ashburn, M.D.

"The Correlation of Roentgen with Clinical Findings in the Diagnosis of Heart Disease," William W. Stanbro, M.D., and John M. Evans, M.D.

"Pneumonia Due to Mineral Oils (Lipoid Pneumonia)," Theodore Winship, M.D.,

Edward B. McCabe, M.D., and Aubrey O. Hampton, M.D.

LIVER DISEASE AND JAUNDICE

December 6 "Correlation of Needle Biopsy with Function Tests in the Differential Diagnosis of Liver Disease," Irving Brick, M.D.

"What Constitutes Good Biliary Tract Surgery," Paul Kiernan, M.D.

"Differential Diagnosis of Jaundice," Peter D. Comanduras, M.D.

December 7 "Clinical Relations of Skin Pigmentation in Liver Disease," Harold Jeghers, M.D.

"Differential Diagnosis of Hemolytic Jaundice," O. Benwood Hunter, Jr., M.D.

"Splenectomy—Its Use in Hemolytic States," Paul Kiernan, M.D.

"Uses of Newer Therapeutic Agents in Cirrhosis," Peter D. Comanduras, M.D.

December 8 "Role of Blood and Blood Derivatives in the Therapy of Liver Disease," John B. Ross, M.D.

Demonstration: Needle Biopsy of Liver—Irving Brick, M.D.

"Hepatomegaly," Harold Jeghers, M.D.

Demonstration: Laboratory Aids in the Differential Diagnosis of Jaundice—O. Benwood Hunter, Jr., M.D.

CHRONIC DIARRHEAS

December 6, 7 and 8 "Diarrheas of Organic Origin Other than Bacterial and Protozoal," Garnet W. Ault, M.D.

"Considerations in Differential Diagnosis in Chronic Diarrheas," William T. Gibb, Jr., M.D.

WARWICK MEMORIAL OPENS NIGHT CANCER CLINIC

Beginning Thursday, November 6, 1949, at 7 p.m., and each Thursday night thereafter, the George Washington University Cancer Clinic in the Warwick Memorial, 1339 H Street, is conducting an evening session for the benefit of patients who find it a hardship to come for their initial diagnostic studies during the day. These evening sessions are not intended for Government workers who may be unwilling to use annual leave for this purpose, but rather for women with children at home, or men and

women who are not eligible for sick leave and cannot afford to take time off.

This night clinic will be diagnostic only, and will not be used for follow-up care. Initially, subsequent X-ray studies will be carried out during the day. Biopsies, simple excisions, and simple laboratory procedures will be done.

Charges at this clinic will be the same as during the day. All patients are screened by a secretary, and charged according to ability to pay for services.

Patients referred by physicians will be examined and a letter, stating the findings and recommendations, will be sent to the physician. If the physician wishes a diagnosis *only*, he should so indicate when referring the patient; otherwise it is assumed that the patient is referred to the clinic for treatment of his tumor by members of the staff. Patients completing treatment will be seen in clinic for follow-up care in relation to the tumor problem *only*, and the regular physician will be kept informed as to his progress.

Appointments may be made by calling STerling 7800, Extension 667, between 10 a.m. and 4 p.m., Monday through Friday.

MEMBERSHIP

The following applicants for membership will be voted on at the meeting of the Executive Board, December 19, 1949:

For Active Membership

Daniel J. Abramson, University of Maryland—1938
 J. E. Ash, University of Pennsylvania—1905
 Edwin R. Ballinger, Jr., George Washington University—1947
 Francis A. Barrett, Jr., University of Michigan—1944
 James D. Brew, Jr., Cornell University—1944
 Alice Drew Chenoweth, Vanderbilt University—1932
 Frederick W. Coe, University of Pennsylvania—1944
 Natalie Johnson Deyrup, Columbia College of Physicians and Surgeons—1938
 Alfred Dibbs, Georgetown University—1938
 Charlotte Donlan, Woman's Medical College of Pennsylvania—1937
 Adolph Friedman, Jefferson Medical College—1943
 Bernard S. Gordon, University of Louisville—1942
 William V. Hare, Indiana University—1944
 John F. Harrington, Georgetown University—1925
 Robert C. Hawkins II, University of Nebraska—1939
 Hubert B. Haywood, Jr., Duke University—1941
 Jesse Bruce Hopkins, Medical College of Virginia—1933
 William P. Hynes, Creighton University—1912
 Harold N. Kagan, George Washington University—1943
 Paul Kaufman, George Washington University—1947
 Richard J. Kemp, University of Maryland—1921
 William Gordon Leary, Jr., University of Virginia—1943
 Reginald S. Lourie, Long Island College of Medicine—1936
 Frank G. MacMurray, Harvard Medical School—1943
 Robert E. Martin, George Washington University—1947
 Robert H. Mitchell, Medical College of Virginia—1936
 Warren L. Moorman, Medical College of Virginia—1943
 James M. Moss, University of Virginia—1941

Robert J. O'Donnell, Georgetown University—1947
 Vincent L. O'Donnell, Georgetown University—1946
 Philip S. Owen, Yale Medical College—1937
 Edwin P. Parker III, University of Virginia—1942
 Arthur F. Passarelli, Georgetown University—1938
 John R. Pate, Duke University—1933
 Thomas M. Peery, Medical College of the State of South Carolina—1932
 Charles E. Rath, Jr., Western Reserve University—1943
 Enos Ray, George Washington University—1943
 James L. Royals, Tulane University—1940
 William F. Runge, Georgetown University—1944
 Cyril A. Schulman, George Washington University—1942
 George D. Selby, University of Maryland—1936
 Lawrence D. Summerfield, University of Illinois—1948
 Richard L. Whelton, George Washington University—1947
 Roy E. Whitehead, Indiana University—1920
 Herbert Wisotsky, New York University—1946
 Charles E. Woodson, Medical College of Virginia—1944

For Associate Membership

Manning W. Alden, George Washington University—1942
 Andrew J. Brennan, Georgetown University—1934
 Howard C. Curtis, University of Chattanooga—1906
 David Eden, New York University—1943
 W. L. Etienne, George Washington University—1938
 Bela Gondos, Pazmany Peter University (Hungary)—1927
 Paul Haak, College of Medical Evangelists—1947
 William B. Hagan, University of Maryland—1943
 James L. Hansen, Duke University—1944
 John S. Haight, University of Maryland—1943
 Philip E. Jones, College of Medical Evangelists—1946
 Adrian Recinos, Jr., Columbia College of Physicians and Surgeons—1945
 Andrew E. R. Rudnai, Franz Joseph University (Hungary)—1937
 William J. Weaver, Jr., Albany Medical College—1940

MEETINGS

Wednesday, November 30

The program will be sponsored by the *George Washington University School of Medicine*. Speakers and subjects to be announced.

Wednesday, December 14

The *Section on Pathology and Laboratory Medicine*, the *Washington Society of Pathologists* and the *Baltimore Society of Pathologists* are co-sponsors with the District Medical Society of the following program:

"Diagnostic Errors Caused by Metastatic Tumors,"
 RUPERT A. WILLIS, D.Sc., M.D., F.R.C.P., of London, pathologist on the staff of the Royal Cancer Hospital.

News and Personals

The Sixth National Conference of County Medical Society Officers will be held in Washington during the Clinical Session of the AMA. The meeting is scheduled for December 8 at 8 p.m. in the Hotel Statler. All doctors and their wives are invited to attend.

The general topic for consideration will be "Community Health Leadership." Outstanding local achievements will be described by Dr. A. L. Tuuri, Medical Director of Mott Children's Center, Flint, Michigan, and Dr. Roy L. Scott, of Buffalo, President of the Erie County (New York) Medical Society.

Mr. George N. Craig, of Brazil, Indiana, National Commander of the American Legion, and Dr. Warren F. Draper, of Washington, Executive Medical Officer of the Welfare and Retirement Fund, United Mine Workers of America, will show how national programs depend on local achievements.

The final speaker will be Dr. Joseph S. Wall, Past President of the Medical Society of the District of Columbia; his subject will be "The Doctor's Prognosis."

Upon invitation, **Dr. Rupert A. Willis**, pathologist on the staff of the Royal Cancer Hospital, London, is visiting the United States and will be in Washington under the auspices of the Armed Forces Institute of Pathology, December 12-14. The following tentative schedule has been set up for the three days:

December 12

Morning: Armed Forces Institute of Pathology
9 to 11 a.m.: Tour through the Institute
11 a.m. to 12 noon: Staff conference at which selected cases will be shown. Dr. Willis will be invited to enter into the discussions. Pathologists in the Washington area are invited to this conference.

Afternoon: Army Medical Center
2 to 4 p.m.: Tour of Army Medical Research and Graduate School and Walter Reed General Hospital

4 to 4:40 p.m.: Dr. Willis will talk to the combined staff of Walter Reed Hospital and faculty of the School on a subject of his own choice.

December 13

Morning: National Naval Medical Center
10 to 11 a.m.: Lecture to staff and guests
11 a.m. to 12:00 noon: Tour through Naval Medical School, Naval Research Institute and Hospital
Afternoon: National Cancer Institute
2 to 3 p.m.: Tour of Institute
3 p.m.: Dr. Willis will lecture to the staff on "The Structure and Histogenesis of Teratoma"

December 14

Morning: George Washington University School of Medicine
9:30 to 11 a.m.: Visit with staff
11 a.m. to 12 noon: Dr. Willis will deliver the Smith-Reed-Russell Lecture to the student body on a subject of his choice.
Afternoon: Georgetown University School of Medicine
2:30 p.m.: Informal round table discussion on research as applied to bone tumors with the faculty of the Department of Pathology and invited guests.
Evening: The Medical Society of the District of Columbia
8:15 p.m.: Dr. Willis will lecture on "Diagnostic Errors Caused by Metastatic Tumors." He will be introduced by Dr. Walter Freeman, President of the Society.

The National Conference on Cardiovascular Diseases will be held at the Mayflower Hotel, Washington, D. C., January 18-20, 1950. This meeting has been described as "the first national conference to bring together physicians, scientists, community service leaders and members of allied professions to formulate a program to combat and control the heart diseases." Dr. Paul D. White, former President of the American Heart Association and now Chief Med-

CALENDAR OF MEETINGS

October 4	Registered X-ray Technicians of Washington
October 5	Section on Dermatology and Syphilology Clinical Society, Diabetes Association of D. C.
October 6	Section on Neurology and Psychiatry Lay Society, Diabetes Association of D. C.
October 7	Committee on Sports Washington Heart Association Advisory Committee to Washington Regional Blood Center
October 8	Washington School of Psychiatry Washington Psychoanalytic Society
October 10	Classification Committee Washington Orthopedic Club
October 11	Medical Officers' Reserve Units D. C. Dental Society
October 12	Scientific Meeting of Society Woman's Auxiliary District Division of American Cancer Society
October 14	Committee on Cancer Control
October 17	George Washington University Medical Society
October 20	Subcommittee on Mental Health
October 21	Washington Psychiatric Society
October 24	Executive Board
October 25	Section on General Practice Medical Officers' Reserve Units
October 26	Program Committee
October 28	Committee on Industrial Medicine District Rheumatism Society

ical Advisor to the National Heart Institute of the Public Health Service, has been named Chairman of the Steering Committee. The Conference is sponsored jointly by the National Heart Institute and the American Heart Association.

A competitive examination for appointment of **Medical Officers in the Regular Corps of the United States Public Health Service** will be held on January 9, 10 and 11, 1950. Applications must be received no later than December 12, 1949. Application forms and additional information may be obtained by

writing to the Surgeon General, USPHS, Federal Security Agency, Washington 25, D. C. Attention: Division of Commissioned Officers. Applications received after December 12, 1949, will not be accepted for this examination but will be admitted to the examination in May, 1950.

Group Hospitalization, Inc., through its President, Joseph H. Himes, has announced a new increase in rates for its 410,000 subscribers, with some additional benefits. The new rates become effective December 1 on new contracts or thereafter on the expiration of present ones. Mr. Himes stated the increase was made necessary because hospital costs have risen about 21 per cent since June 1948 and because reserve funds are being depleted too rapidly. These funds are now about \$500,000 as compared to \$1,500,000 two years ago.

For single coverage, the subscription rate has been raised from \$1.10 to \$1.30 per month; family rates will be \$3.00 a month instead of \$2.75. The husband-wife contract has been discontinued; couples will be insured under family rates.

Shortly after January 1 hospitalization benefits will be opened to individuals at an estimated cost of about 20 per cent above employed groups, and without maternity benefits.

The present ten-day limitation on paying hospital costs for polio patients will be removed. Hospitalization costs on ailments existing when the subscriber joined will be paid, providing such hospitalization is incurred more than ten months after joining. Congenital disabilities will remain excluded.

Allowances for hospitalization outside of Washington have been liberalized. A per diem rate of up to \$6.50 will be allowed toward the hospital room plus allowances for other charges ranging from \$11.00 for one day to \$82.00 for a 30-day stay. Present contracts call for payment of \$15.00 for the first day and \$6.50 for subsequent days, with no other allowances.

The dollar enrollment fee will be discontinued.

Six of the District Medical Society's Sections have begun their fall meetings. All of these sectional meetings were held in the Medical Society's building with the exception of Pediatrics, which was held at Children's Hospital.

The Section on Pediatrics elected new officers, October 4. They are:

Dr. George Maksim, *Chairman*; Dr. William A. Howard, *Vice Chairman*; Dr. John E. Cassidy, *Secretary-Treasurer*.

At the request of the Medical Society's Program Committee the Section decided to present a program before the parent Society, March 22.

The Section on Dermatology reelected officers at its first meeting, October 5. They are:

Dr. H. H. Hazen, *Chairman*; Dr. F. J. Eichenlaub, *Vice Chairman*; Dr. Naomi M. Kanof, *Secretary-Treasurer*.

This Section is planning to sponsor a meeting before the entire Medical Society during the program year.

At the meeting of the **Section on Neurology and Psychiatry**, October 6, Drs. René Cailliet and Z. M. Lebensohn presented a paper on "Myasthenia Gravis Resembling Pseudohypertrophic Muscular Dystrophy."

The Section on General Practice, which met on October 25, reelected officers, as follows:

Dr. R. Lee Spire, *Chairman*; Dr. J. Chester Brady, *Vice Chairman*; Dr. Herbert S. Gates, *Secretary-Treasurer*.

Members of the Diabetes Association of the District of Columbia presented a panel discussion on diabetes especially for the general practitioner.

Two sections met on November 1. **The Section on Radiology** held a joint meeting in the auditorium with the Section on Radiology of the Baltimore City Medical Society. The program consisted of cinefluorography of cerebral arteriograms.

The Section on Anesthesiology met in the library. The following papers were presented: "A New Intravenous Barbiturate," Dr. William A. Spencer; "Clinical Experiences with C-10," Dr. Charles H. Spencer; "Anesthesia in Northwest Europe," Dr. Ernest Trier Morch.

Dr. George C. Ruhland, Executive Director of the **District Division of the American Cancer Society**, announced new grants totaling \$90,055 for research and service programs in the field of cancer

for the District of Columbia. Recipients of the grants are as follows:

Children's Hospital, \$4,180 for a program of diagnosis and treatment of cancer.

Doctors Hospital, \$3,890 for diagnosis and treatment, and \$3,141 toward the deficit of its cancer detection center.

Garfield Hospital, \$7,785 for cancer detection and \$6,000 for its tumor clinic.

Georgetown University Hospital, \$17,976 for seven projects in cancer research, detection, diagnosis and treatment.

Warwick Memorial Clinic of George Washington University Hospital, \$22,890 for diagnosis and treatment.

George Washington University Medical School, \$20,000 for research projects.

Instructive Visiting Nurses Society, \$4,193 for the bedside care of cancer patients confined to their homes. This amount would supplement requests in the current District budget for funds to develop a program of home care for cancer patients by District nurses.

The Medical Arts Society will meet December 8 at the Kennedy-Warren. Dr. Luther Gilliom will discuss "Diagnostic and Therapeutic Nerve Blocks."

Two meetings have been held earlier this fall. On October 13, Dr. Robert Nelson spoke on "Pelvic Dystocia and Diabetes," and on November 10 Dr. John Peacock gave a talk entitled, "Parents and Children."

Other meetings have been scheduled for January 12, February 9, March 9, and April 13. The annual banquet will be held in May.

The Washington Psychiatric Society will hold a joint meeting with the Washington Psychoanalytic Society, December 10, in the Medical Society's auditorium. Dr. Gregory Zilboorg of New York, well known lecturer and author in the field of psychiatry, will be the guest speaker.

The Board of Trustees of the **District Division of the American Cancer Society** held its third annual meeting in the Medical Society's building, October 12. Mr. Walter S. Pratt, President of the Equitable Coöperative Building Association, was elected to succeed Dr. Harry H. Kerr as President. Mr. Pratt

and Dr. William Charles White were largely responsible for organizing the District Division of the Society.

Three new members elected to the Board of Trustees were Dr. John R. Heller, of the National Cancer Institute; Mrs. C. Ashmead Fuller, Administrator of Garfield Cancer Detection Clinic; and Mrs. Louis H. Renfrow, Chairman of the Women's Division for the 1949 fund campaign.

Members of the Executive Committee were re-nominated and elected. They are: Dr. Harry H. Kerr, *Chairman*; Dr. Calvin T. Klop, *Secretary*; Frederick P. H. Siddons, *Treasurer*; and Mr. Pratt, Dr. Murray M. Copeland, and Mr. Eliot Wadsworth.

Included among Board members who were re-nominated and elected were Drs. Copeland, Roger M. Choisser, William P. Herbst, and Daniel F. Lynch.

Dr. Peter D. Comanduras announced his withdrawal as Medical Director of the Society.

Nine members of the **District of Columbia Section, American Congress of Physical Medicine**, visited Walter Reed General Hospital, October 6, where they were conducted on a tour of the Army's audiology and speech correction center at Forest Glen, Md., by Dr. Aram Glorig, Director.

The visiting physicians, who had met earlier for breakfast at the Hot Shoppes Restaurant on Georgia Avenue, consisted of Dr. G. J. P. Barger, Chairman of the Section, and Drs. R. R. Sayers, Emil J. C. Hildenbrand, Wayne McFarland, William Reggio, Hubert Manuzak, F. M. McChesney, Isadore Levin and Charles S. Wise.

The **George Washington University Medical Society** met in the Medical Society's building, October 17. Guest speaker was Dr. Grace Roth of the Mayo Clinic, Rochester, Minn., who discussed "Tobacco and the Physiological Effects of Smoking."

The **Washington Heart Association, the District Division of the American Cancer Society, and the District Tuberculosis Association** held a joint meeting in Barker Hall of the Y.W.C.A., October 3. Participating in a panel discussion were Dr. Bernard J. Walsh, Director of the District's rheumatic fever clinic; Dr. Peter D. Comanduras, Medical Director of the Cancer Society; and Dr. Robert J. Anderson,

Chief of the Division of Tuberculosis Control of the Public Health Service.

The **District Rheumatism Society** met in the Medical Society's auditorium, October 28. The speaker was Dr. Thomas McPherson Brown, Professor of Medicine at George Washington University School of Medicine, who is Vice President of the Rheumatism Society. His topic was "The Present Status of the Infectious Theory in the Etiology of Rheumatoid Arthritis."

The **Osler Society** met at the home of Dr. W. Dabney Jarman, October 24. A paper on "Reiter's Disease" was presented by Dr. Harold Downey, and a case report on "Painless Hematuria" was given by Dr. Hilbert Sabin.

The **Health Section of United Community Services** held its first fall luncheon meeting, October 13, in the Georgian Room of the Sheraton Hotel. Dr. Winfred Overholser, Chairman of the Section, presided. Among the speakers were Dr. Charlotte Donlan, Director of the District Health Department's Bureau of Cancer Control, and Dr. Darrell C. Crain. Dr. Donlan discussed the prevention of chronic illness and Dr. Crain, medical care for the chronically ill.

The Medical Society's **Executive Board**, at its meeting, September 26, reappointed **Drs. Richard T. Sullivan and J. Ross Veal** to serve as delegates to the Federation of Citizens' Associations of the District of Columbia.

The **Women's Medical Society** met in the Solarium of Doctors Hospital, October 4, for a business session.

Dr. R. Lomax Wells, Medical Director of the Chesapeake and Potomac Telephone Companies, spoke on "Present-day Concepts of Industrial Medicine" at the 102nd Annual Meeting of the Medical Society of Virginia in Richmond, October 9-12.

Dr. Wells also appeared as a speaker before the Section on Industrial Medicine and Surgery at the meeting of the Southern Medical Association in Cincinnati, Ohio, November 17. His subject was "Variables in Industrial Absenteeism."

Dr. George C. Ruhland, who retired as Health Officer, October 1, was honored at a reception and testimonial dinner by 450 friends and associates at the Mayflower Hotel, September 29. Dr. Daniel L. Seckinger, Assistant Health Officer, was chairman of the committee which arranged the dinner; he was assisted by J. Edgar Caswell, Director of the Bureau of Health Education. Other Health Department chiefs who served on the committee of arrangements were Drs. Charlotte Donlan, A. Harry Ostrow, Philip A. E. Stebbing, Daniel L. Finucane, John E. Noble, Ella Oppenheimer, Leopold E. Wexberg, Richard L. DeSaussure, Carl C. Dauer, A. Barklie Coulter, and S. Ross Taggart; also Henry S. Gavens, Walter W. Burdette, Mrs. Josephine P. Prescott, John P. Sanderson, William H. Cary, Jr., and Joseph B. Irvine.

District Budget Officer Walter L. Fowler was toastmaster at the dinner. Commissioner Guy Mason presented Dr. Ruhland with a certificate of merit signed by the three District Commissioners. The principal speaker was Dr. Reginald M. Atwater, Executive Secretary of the American Public Health Association. Others who paid tribute to Dr. Ruhland were Dr. Leona Baumgartner, Associate Chief of the Children's Bureau, and Dr. C. L. Williams, representing Surgeon General Leonard A. Scheele.

Dr. Ruhland has accepted the position of Executive Director of the District Division of the American Cancer Society.

Ten members of the faculty of **George Washington University**, who have this year completed 25 years of teaching service, were honored by the General Alumni Association at a homecoming luncheon, October 22, at the Mayflower Hotel. In this group were the following physicians, all members of the District Medical Society: **Dr. Walter Freeman**, Professor of Neurology; **Dr. Edward Lewis**, Clinical Professor of Pediatrics; **Dr. John H. Lyons**, Clinical Professor of Surgery; **Dr. John A. Reed**, Assistant Clinical Professor of Medicine; and **Dr. Arch L. Riddick**, Clinical Professor of Surgery.

Drs. Lewis, Lyons and Reed received their medical degrees from George Washington University; Dr. Freeman, from the University of Pennsylvania; and Dr. Riddick, from Johns Hopkins University.

The principal speaker at the luncheon was Major General Patrick J. Hurley.

Three members of the District Medical Society appeared on the program of the Neuropsychiatric Seminar sponsored by the Veterans Administration at Murfreesboro, Tenn., October 21 and 22. **Dr. Arthur A. Morris** presented a paper, October 21, on "The Electrographic Criteria for Operative Indications in Epilepsy with Special Reference to Psychomotor Epilepsy." At the banquet, October 22, both speakers were Medical Society members: **Dr. Daniel Blain**, Medical Director of the American Psychiatric Association, and **Dr. Harvey J. Tompkins**, Chief of

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. The Society maintains a Speakers Bureau, headed by Dr. Henry A. Grennan, through which requests for speakers for lay groups are filled.

<i>Date</i>	<i>Speaker</i>	<i>Subject or Title</i>	<i>Organization</i>
October 10	Dr. Lawrence B. McCaleb	Skin Cancer	Washington Hairdressers and Cosmetologists Association
October 11	Dr. Morton H. Rose	Newer Methods in Diagnosis of Heart Disease	D. C. Optometric Society
October 26	Dr. Morton H. Rose	Newer Methods in Diagnosis of Heart Disease	National Cathedral Post of American Legion
November 5	Dr. Caroline Jackson	Aspects of Women in Medicine	Vocational Conference of Girl Scouts
November 16	Dr. R. Lyman Sexton	A Healthy Body	Gordon Junior High School Parent-Teacher Association

Psychiatry and Neurology of the Veterans Administration.

Dr. Kenneth B. Jones, who was the first Superintendent and Chief Medical Officer of the District Training School for the Feeble-minded at Laurel, Md., returned to the post he held from 1924 to 1934, November 1. He succeeds Dr. James A. Alston, who requested the D. C. Board of Public Welfare to return him to his former position as Assistant Superintendent.

Dr. Jones has been Chief of the Mental Hygiene Division of the Maryland Department of Health. He has been Superintendent of three Maryland institutions during his medical career, the Rosewood State Training School, the Eastern Shore State Hospital, and the Springfield State Hospital. Dr. Alston became head of the institution last February upon the death of Dr. James Lewald.

Drs. Walter Stokes, Dorothy Whipple and Leonard M. Dub took part in a series of lectures before the Jewish Community Center beginning October 20. Dr. Stokes gave the first lecture on "Newer Concepts of Parenthood." The next two lectures in the series were given by Dr. Whipple on the general subject of "Physical Health in Childhood." On October 27 she stressed physical health during the first five years, and on November 3, the sixth year to adolescence. Dr. Dub was the lecturer on November 10 and 17, and his subject, "Emotional and Personality Development in Childhood." He divided his subject matter into two parts according to age periods, using the same groupings as Dr. Whipple.

The series will close on December 1, when all three physicians will participate in a panel discussion, along with Rabbi Hyman Ezra Cohen, on "The Parent-Child Relationship."

Dr. Harold Jeghers, Director of the Department of Medicine at Georgetown University School of Medicine, lectured before the House Officers' Association of Boston City Hospital in Boston, October 4. His subject was "The Clinical Evaluation of Fever."

Dr. Peter D. Comanduras was one of ten members of the George Washington University faculty who received promotions recently. His title is now Associate Clinical Professor of Medicine.

Dr. Donald Stubbs participated in the scientific program at the Annual Meeting of the Ohio Society of Anesthesiologists, held in Akron, Ohio, September 23 and 24. On the first day he read a paper on "Establishment and Function of Pain Clinics," and on the second, "Surgical Shock—Clinical Diagnosis and Management."

Miss Edith M. Beattie, Executive Secretary of the Graduate Nurses' Association, has been elected President of the **Interprofessional Conference of the District of Columbia**. Vice President is Irving Tennyson, of the District Pharmaceutical Association, and Secretary-Treasurer, Walter Holland, Executive Secretary of the District of Columbia Dental Society.

Dr. Leo V. Schneider, Chief of the Tuberculosis Control Section of the Tuberculosis Division, Veterans Administration, addressed the general session of the Southern Tuberculosis Conference in Memphis, Tennessee, September 15, on "The Place of Veterans' Problems in Tuberculosis Control."

Dr. J. DeWitt Fox of Glendale, California, has been appointed Editor of *Life and Health*, the Seventh-day Adventist health journal, succeeding **Dr. Wayne McFarland**, who resigned, after holding the position for five years, to become Associate Secretary of the Medical Department of the General Conference of Seventh-day Adventists. Dr. Fox received his medical degree from the College of Medical Evangelists at Loma Linda, Calif.

CORRESPONDENCE

Chicago 12, Ill., August 30, 1949

TO THE EDITOR
MEDICALS ANNALS OF D. C.
WASHINGTON, D. C.

DEAR SIR:

Would you publish the following request?

The study of twins is of great value in providing information concerning the respective importance of hereditary predisposition and environmental influences in disease in man. The results of the use of this method have shown an hereditary predisposition to tuberculosis, diabetes, and tumor formation, and a high, medium or low intelligence quotient.

There is some *a priori* evidence showing an hereditary predisposition for peptic ulcer. Only six cases of the oc-

currence of peptic ulcer in the one or both of mono- or dizygous twins have been reported in the readily accessible literature. Since twins are born in 1 of 86 births and identical twins in 1 of 344 births and the general incidence of ulcer is from 5 to 10 per cent there should be plenty of material available.

I should like to ask physicians to coöperate in assembling such material by sending me cases in which (1) one or both twins develop peptic ulcer, (2) the site of the ulcer, (3) the age of onset of ulcer, (4) the type of twins (monovular or diovular), (5) the sex of the twins, (6) the date of birth of the twins, and (7) the number and age of the brothers and sisters and the absence or presence of ulcer in each.

Yours sincerely,

A. C. IVY, M.D.

*Department of Clinical Science,
University of Illinois*

1853 West Polk Street
Chicago 12, Illinois

PHILIP AUGUSTUS DEGNAN, A.B., M.D. (1909-1949)

Dr. Philip A. Degnan, general practitioner in Washington since 1936, died September 30, 1949, after an illness which began early in 1946. Dr. Degnan was one of the younger members of the District Medical Society.

Born in New York City, September 1, 1909, the son of James Lawrence and Mrs. Elizabeth Brady Degnan, he received his early schooling at St. Ann's Academy in that city. He came to Washington to enroll in Georgetown College, from which he graduated with an A.B. degree in 1930, and continued his education at Georgetown University School of Medicine, receiving his medical degree in 1934. During his four years in the School of Medicine he was President of his class.

Dr. Degnan interned at Gallinger Municipal Hospital from 1934 to 1936, when he opened his office for general practice in the District of Columbia at 821 Maryland Avenue, N.E.

He became an Active member of the District Medical Society in 1938. He was also a member of the American Medical Association and the Georgetown Clinical Society.

Survivors are his wife, Mrs. Eva Riehl Degnan; one son, Philip A., Jr.; and one daughter, Betty

Anne, all residing at the family home at 2224 34th Street, S. E. He also leaves two sisters, Miss Silvia Degnan and Mrs. Walter Partrick, and his father, James L. Degnan, all of Brooklyn, New York.

Abdominal Epilepsy—Stevens

(Continued from page 568)

20. WATTS, J. W., AND UHLE, C. A. W.: Urol. & Cutan. Rev., 1936, **40**, 244.
21. WORSTER-DROUGHT, C., AND SHAFAR, J.: Brit. J. Child. Dis., 1940, **37**, 11.
22. ADAMSON, W. A. D., AND AIRD, I.: Brit. J. Surg., 1932, **20**, 220.
23. LAMBERT, J. P.: Am. J. Psychiat., 1941, **95**, 451.
24. STEVENS, H.: M. Ann. District of Columbia, 1947, **16**, 539.

ECG in Acute Appendicitis Cooch and Schoenfeld

(Continued from page 571)

6. RASMUSSEN, H., AND FOSS, M.: Electrocardiogram of acute hemorrhage from stomach and intestines. Acta med. Scandinav., 1942, **111**, 420.
7. BENATT, A. J., AND BERG, W. F.: Electrocardiogram in pneumoperitoneum. Am. Heart J., 1945, **30**, 579.
8. ORNING, K., SOMMERFELT, C., AND FREDRICKSON, W.: Electrocardiographic findings in patients with peptic ulcer. Acta med. Scandinav., 1946, **124**, 564.
9. GOTTESMAN, J., CASTEN, D., AND BELLER, A. J.: Changes in electrocardiogram induced by acute pancreatitis: clinical and experimental study. J.A.M.A., 1943, **123**, 892.
10. GOLD, H., KWIT, N. T., AND MODELL, W.: Effect of extracardiac pain on heart. A. Research Nerv. & Ment. Dis., Proc. (1942), 1943, **23**, 345.

Erythema Nodosum—Warthen

(Continued from page 572)

The control showed no reaction. A roentgenogram of the chest revealed a semicircular density in the right upper hilum extending from the fourth to the seventh ribs posteriorly. This was interpreted as probably representing a healed primary tuberculous complex.

During the following 3 weeks the nodular erythematous lesions on the legs gradually assumed a purplish appearance, flattened out, and slowly disappeared, leaving brownish stains which persisted for several days. Four weeks after the onset of the illness a physical examination revealed no abnormalities.

An X-ray film of the mother's chest disclosed an exudative infiltrate with cavitation in the right upper lobe designated as moderately advanced active tuberculosis. The father's chest plate showed no abnormalities. Shortly

after discovery of the tuberculous lesions the mother was hospitalized at a tuberculosis sanatorium and the infant was placed in a foster home.

SUMMARY

A case of erythema nodosum in an 18-month-old infant which led to the discovery of moderately advanced tuberculosis in her mother is reported in order to stress the importance of searching for tuberculous contacts in all such cases.

BIBLIOGRAPHY

1. RODDY, R. L.: Etiology of erythema nodosum. *J. Pediat.*, 1949, **34**, 338.
2. SUTTON, R. L., AND SUTTON, R. L., JR.: *An Introduction to Dermatology*, 4th ed. St. Louis: Mosby, 1941, p. 94.
3. MACKEE, G. M., AND CIPOLLARO, A. C.: *Skin Diseases in Children*, 2nd ed. New York: Hoeber, 1946, pp. 167 and 396.
4. GIUNTINI, R.: Epidemic of erythema nodosum and measles in an institution. *Riv. clin. pediat.*, 1943, **41**, 129.
5. PRATES, M.: *South African M. J.*, 1940, **14**, 95.
6. DELEON, W.: *Tr. Seventh Congress, Far Eastern A. Trop. Med.*, 1927, **1**, 91.
7. STEINER, M. M.: *Am. J. Dis. Child.*, 1938, **55**, 807.
8. ROSENBLATT, M. S., AND MAY, J. A.: *Northwest Med.*, 1946, **45**, 336.
9. STRONG, G. F., PITTS, H. H., AND MCPHEE, J. G.: *Ann. Int. Med.*, 1949, **30**, 791.
10. ROSENBERG, D. M. L., AND OSCHNER, A.: *Surgery*, 1948, **24**, 1036.
11. WILBUR, D. L., WOOD, D. A., AND WILLET, F. M.: *Ann. Int. Med.*, 1944, **20**, 453.
12. HOLLEY, H. L., AND PIERSON, G.: *Am. J. Med.*, 1948, **5**, 561.
13. SPATT, S. D., AND GRAYZEL, D. M.: *Ibid.*, 1948, **5**, 570.
14. UPHAM, R., AND KLOTZ, S. D.: *M. Clin. North America*, 1942, **26**, 855.
15. GUTMAN, A. B., OLSON, K. B., GUTMAN, E. B., AND FLOOD, C. A.: *J. Clin. Investigation*, 1940, **19**, 129.
16. SCHATZKI, R.: *Am. J. Roentgenol.*, 1941, **46**, 476.
17. RUDDOCK, J. C.: *South. Surgeon*, 1939, **8**, 113.
18. EWING, J.: *Neoplastic Diseases*, 4th ed. Philadelphia: Saunders, 1940.
19. BERK, J. E., AND LIEBER, M. M.: *Am. J. M. Sc.*, 1941, **202**, 708.
20. BERMAN, C.: *South African J. M. Sc.*, 1941, **6**, 145.

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Primary Carcinoma of Liver—McNally and Finestone

(Continued from page 575)

hyperplasia, multiple adenomata, and carcinoma. These changes were all present in case 1. It is conceivable, therefore, that with the modern treatment to prolong the life of these cirrhotic patients we may expect an increased incidence of primary carcinoma in portal cirrhosis.

SUMMARY

1. Two cases of primary carcinoma of the liver are presented, one of the hepatocellular type, the other of the cholangiocellular type.

2. The relationship between primary carcinoma of the liver and preëxisting cirrhosis is again emphasized.

BIBLIOGRAPHY

1. CHARACHE, H.: *Am. J. Surg.*, 1939, **43**, 96.
2. HOYNE, R. M., AND KERNOHAN, J. W.: *Arch. Int. Med.*, 1947, **79**, 532.
3. BONNE, C.: *Am. J. Cancer*, 1937, **30**, 435.
4. NAGAYO, M.: *Gann*, 1933, (extra no.), 1; cited by Holley and Pierson (see ref. 12).

British National Health Service—Observer

(Continued from page 594)

says, "would create many resistances and make the Minister subject to everyone else instead of having them subject to him. It is his responsibility to make the new system work, and he cannot do that if he is not master, if he does not have complete control."

The *Journal* sums up its impression as follows:

"There emerges the picture of a profession doing its harassed best to make the National Health Service a going concern. Mr. Bevan's haste and mistakes have to a large extent been masked by the self-discipline of the individual doctor, whose adherence to the traditions of a learned profession makes it possible for him to withstand the vagaries of the political climate. But the Minister—and the Ministry of Health—should take heed of this comment from the writer on the Service in Scotland: 'The men who work it, however, are not, in general, working in a contented state.' If medicine is to continue to attract into its ranks able men and women it is above all imperative that the terms and conditions of service should so evolve as to produce a profession which will do its work in a happy and contented frame of mind."

T. W.

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ACUTE PANCREATITIS*†

A Review of Present Concepts as Related to Forty-six Cases in the District of Columbia

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Baltimore

IT IS now generally accepted that the diagnosis of acute pancreatitis can be made clinically with laboratory confirmation, and almost all will admit that many cases should not be operated upon. No longer need one feel obligated to produce nothing but autopsied or surgically explored cases. This stage in the history of the disease has passed, and reporting statistically in this manner is more open to error than reporting those cases which by either clinical (with laboratory confirmation), surgical, or pathologic opinion appear to be very definite and bona fide cases of the disease.

The frequency with which this disease is discussed by the surgeon and conversely its neglect by the internist are strange in the light of present-day concepts. And I must doubt that the majority of these cases are seen exclusively by

the surgeon, since in the present series, in which a notation was made on 40 cases as to which service the patient was admitted on, 20 were admitted to the surgical service and 20 to the medical service of the respective hospitals.

After a careful examination of the records, since 1940, of 4 hospitals in the District of Columbia, only 46 cases were found which seemed genuine enough to be of value. Even with this discrimination 2 cases are still considered questionable because they have no operative, serum amylase, or autopsy confirmation. One of these is included because the patient had had 3 other identical proven attacks, and the other because of the excellent history and physical findings plus transient hyperglycemia and glycosuria; the serum amylase was not taken until the third and fourth day in each of these cases. Two patients are used as several cases according to the number of their separate attacks on different hospital admissions (2 and 4). For this reason it would appear that we cannot regard this as anything but a distinctly uncommon disease and that its

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† This study was made possible through the permission and cooperation of the record librarians of Emergency, Doctors, Gallinger Municipal, and Garfield Memorial Hospitals. All records at Gallinger Hospital were not examined.

management must still remain the subject of "series" of cases. This series should be reasonably representative because it includes the white (32 cases) and negro (14 cases) races and records from 3 hospitals which have principally private patients and 1 hospital which has principally charity cases. Of the 46 cases chosen, 32 have been confirmed by operation or postmortem examination or both. The rest are considered to be diagnosed on a clinical and laboratory basis.

ETIOLOGY

In almost every series of pancreatitis previously presented one is impressed by the incidence of associated gallbladder disease. In over 2,000 cases reviewed by different authors^{1,2,3,4} since 1907, it appears amazingly consistent that approximately two thirds of the total number of cases show evidence of gallbladder disease (acute or chronic cholecystitis or biliary stones). In all of these series the incidence of choledocholithiasis and/or ampullary stones was of course much less frequent than cholelithiasis. In about 30 per cent of the cases there is no evidence of gallbladder disease whatsoever. This group, together with the few cases in which bile and pancreatic ducts have been found to enter separately into the duodenum, certainly suggests that a fatal pancreatic necrosis can arise independently of bile.^{4,5} Typical cases of acute pancreatitis have resulted from hematogenous infection of the pancreas.^{6,7} Brahdy and Scheffer⁸ reported 156 cases of clinically suggestive acute pancreatitis not surgically explored in 8,306 cases of mumps. Two reported autopsies confirmed the association of acute pancreatitis and mumps with an edematous, congested, and enlarged pancreas being observed in both cases. It is equally well established that trauma alone may cause typical pancreatic necrosis.⁵

In 1901 Opie⁹ demonstrated that injection of bile into the pancreatic duct of an animal would cause necrosis of the organ, and also proved by a now historic autopsy observation (from Professor Halsted's clinic) that a small gallstone

lodged at the duodenal orifice of the bile papilla might divert bile from the common duct into the pancreatic duct, and in this way produce hemorrhagic pancreatitis. But of course this finding is unusual and probably anatomically possible in only 18 per cent of individuals.¹⁰ Archibald,¹¹ in 1919, reexamined the function of the common duct sphincter (of Oddi) in the experimental production of pancreatitis. He caused pancreatitis (in cats) entirely through the action of this sphincter combined usually, but not always, with some increase in pressure in the biliary system behind the sphincter. But as Coffey¹² pointed out, work showing the major part of the sphincter in man to be actually just above the point where the bile duct joins the ampulla (spasm of which would prevent the escape of bile from the biliary tree) and investigations showing intra-pancreatic pressure to exceed intra-biliary pressure experimentally and clinically produced much argument about Archibald's theories.¹³ Dragstedt's group⁵ stated in 1934 that evidence supported the theory that at least 60 per cent of the cases of acute pancreatitis occurring in man developed as a direct result of the passage of bile over into the pancreatic ducts, this despite statistical evidence that in only one sixth of this number has a common channel due to obstruction at the papilla of Vater by a gallstone been demonstrated. With no direct evidence to support this belief, they postulated that in the remaining five sixths of this group a common channel has been produced by spasm of the sphincter of Oddi, transitory stone obstruction, or edema of the mucosa at the papilla. This still left 40 per cent of cases in which it appeared that bile played no role. Rich and Duff¹⁴ in 1936 were of the opinion that retrojection of bile into the pancreatic duct is an infrequent cause of hemorrhagic pancreatitis and that in most cases the main pancreatic duct is unobstructed. They believed the obstruction occurred in branches within the pancreas and found metaplasia of duct epithelium with associated acinar dilatation in the routine sections of 13 of 24 cases of hemorrhagic

pancreatitis. This condition results in rupture of dilated acini behind the obstruction during times of increased pressure within the system, resulting from stimuli which greatly increase the production of secretion (such as a large meal or the ingestion of alcohol).

Thus it would appear that the disease most probably is the result of an obstruction to the pancreatic duct system at some point. The cause of the obstruction in the majority of cases is still far from established. That the high incidence of biliary disease with pancreatitis is necessarily a causal relationship is still to be questioned.¹⁵ That the pancreas might be subject to pathologic changes from stasis and infection similar to but less often than the biliary system should not be ignored. Then any acute process might result in duct obstruction more easily. As regards infection, Lewison³ summarized extensive clinical and experimental investigation by numerous workers back to Claude Bernard (1856) and stated that "the variable and inconstant results of experimental and clinical bacteriologic studies readily indicate that infection alone is rarely a cardinal factor in the causation of acute pancreatitis but is rather a factor of secondary ingress and activity preying on already injured pancreatic tissue." But in any individual case it should be stated that a great multiplicity of etiologic agents have been reported in the literature.

In the present series gallbladder disease was demonstrated in 22 of the 42 different patients (52 per cent). Of this number, 15 (36 per cent of the total) had cholelithiasis and 3 (7 per cent) had stones in the common duct with at least partial obstruction. Another patient had evidence of obstruction of the common bile duct, but at operation the cause was no longer apparent, and another had adhesive obstruction of the common bile duct. These figures fit in well with most previous reviews on this subject but not with the report of Weiner and Tennant, who found a coëxistence of biliary tract disease in only 16 per cent of their necropsy findings in

acute pancreatitis.¹⁵ However, in that review of 4,000 autopsies demonstrating 38 cases of acute pancreatitis at the New Haven Hospital especial emphasis was placed on the history of alcoholism. They found alcohol a "probable factor" in 25 or 66 per cent of the 38. In examining this report it is seen that of the "only 6" or 15.8 per cent with associated gallbladder disease, only 1 had a significant history of alcoholism. In other words, the history or finding of gallbladder disease and alcoholism both in association with acute pancreatitis was distinctly unusual. In the present series there were only 6 patients (14 per cent) with histories of severe alcoholism preceding their attacks, but strangely enough there was not a single case of demonstrable gallbladder disease in this group, although 3 had postmortem examinations and 1 had adequate X-ray examinations. In carrying this division further, it is noted in the paper of Egdahl¹² and of Myers and Keefer¹⁶ that groups are separated into those with gallbladder disease and those with alcoholic histories without mentioning any overlapping on this point. The latter group presented 6 abstracts of their 29 cases of pancreatic necrosis which occurred after acute and chronic alcoholism when there were no other demonstrable factors to account for it. And in another series¹⁴ of 19 cases in which information was available regarding alcoholism 7 were known to be alcoholics and none of the 7 had associated biliary tract disease, although there were 4 cases of gallstones in the whole group. According to the results of Weiner and Tennant, there is an increase of 40 to 50 times in the incidence of pancreatic disease in the alcoholic group. Cases of acute and chronic pancreatitis in the reviewed cases of biliary tract disease gave an incidence only slightly greater than their occurrence in the general autopsy series. This latter aspect would appear very important in evaluation of therapy. But series of cases are so dependent on the type of source material that we see wide variations in emphasis. Thus, while Weiner and Tennant's series found alcohol an important factor in 66 per cent of

their cases, Lewison³ in his group of 35 cases found no mention of alcoholism, acute or chronic, and he surmised that the role of alcohol alone must be a most insignificant one. More likely it seems that the mortality rate in alcoholics with acute pancreatitis is higher than the general average, and those authors reviewing a group of cases from an autopsy series will have a larger group of alcoholics than will the clinicians.

There does not seem to be a significant number of cases illustrating any other predisposing factor. Many of the cases occurred several hours after a heavy meal, but this type of history is difficult to evaluate. About one half of the cases gave histories of 1 or several previous similar attacks before the present episode. Of the 22 patients in which no previous attacks of a similar or questionable nature could be found, 16 were of the more severe hemorrhagic type (yet this severely sick group constituted less than one half of the 46 cases presented).

Of the 37 patients in which the body weight is mentioned, only 18 were said to be obese and over 75 per cent of these "plump" patients had associated gallbladder disease. There was a wide range in ages from 18 to 83 and only 25 patients, or slightly over one half, were between 25 and 50. There was a puzzling group of cases over the age of 70 (3 cases). When we remove the group of cases in which definite gallbladder disease was found and that group of cases in which alcoholism was a prominent feature of the history before the attack, there are left 14 patients or one third of the total number. In breaking this group down the present series discloses that one half of these are a group of male patients between the ages of 36 and 60 who are of normal weight, and the other half are the very difficult to diagnose, variable group at the extremes of age and representing no apparent common denominators. Of the 42 different patients, 23 were females and 19 were males. Sex incidence in a number of series^{1,3} listed 1,093 females to 653 males.

PATHOLOGIC CONSIDERATIONS

There has been a confusing list of names for acute pancreatitis, but lesions can be conveniently divided into (1) acute pancreatic necrosis, a shocking and lethal disease, and (2) acute pancreatic edema, a self-limited condition attended by a low mortality.¹² Undoubtedly the final distinction between acute edema and acute necrosis of the pancreas rests in the absence of intraglandular activation of trypsinogen in the former. McWhorter¹ divided his 64 cases into: type I, edematous and hard; type II, edematous and hemorrhagic; type III, necrotic and gangrenous; and type IV, suppurative or with a definite abscess. The mortality rates of his groups II and III were both 70 per cent and for clinical purposes they may be combined, as they are in this present series. Of the 46 cases reviewed here, 24 cases could be classified in the group of acute edematous pancreatitis and 22 in the group of necrotic or hemorrhagic pancreatitis. No cases of suppurative disease were found. The over-all mortality rate was 38 per cent, but this is far from telling the story, since there were no deaths in the group of acute edematous pancreatitis (of which 13 were operated upon), and there was a mortality rate of 73 per cent in the group of acute pancreatic necrosis. Nine patients with acute hemorrhagic pancreatitis were operated upon and 5 (56 per cent) died. Criticism of statistics for showing that operative mortality is higher than conservative treatment has been based on the presumption that the more serious cases (e.g., those resembling perforated peptic ulcer) are usually operated on.¹⁷ This survey might bear that out in principle, since it presented a larger group of the cases in the more severe stages of pancreatitis for conservative treatment rather than operation, and the mortality was lower in the operated group. The reason that more of these severely ill patients were not operated on cannot be blamed on the trend of recent years to treat these cases conservatively, because, as will be pointed out later, the correct

diagnosis was not even considered in most of these cases.

There are a number of complications of acute necrotic pancreatitis, but the majority of deaths result before the complications can occur. Death may occur suddenly in shock on or off the operating table, but the cause of the majority of "slower" deaths appears to be the poorly understood process of toxemia. McWhorter¹ believed this to be the cause of death in 20 of his patients. He listed local sepsis as the next most common cause of death in his series (11 were operated on and 2 were not). On the basis of experimental work Dragstedt⁵ believed that the end-products of the partial or complete digestion of the pancreas by active pancreatic juice were not sufficiently toxic, if placed in the peritoneal cavity, to cause death. He found bacteria similar to those found in the intestinal tract in the uncontaminated pancreas of most dogs and rabbits. Experimentally the toxemia was chiefly due to these organisms, which proliferate in necrotic tissue. *B. welchii* may contribute to this toxic effect, but probably most of the toxemia results from proteinogenous amines and similar substances arising from the bacterial decomposition of proteins or their split products. These findings, published in 1934, would now seem to emphasize the role of chemotherapy against the enteric group of organisms in the treatment of this disease.

DIAGNOSIS

From a review of the clinical literature the diagnostic difficulties associated with this disease are clearly evident, with correct diagnoses giving percentages like 11 per cent³ and 12 per cent.¹ A review of records of members of the Chicago Surgical Society disclosed wrong diagnoses in 75 per cent. The most frequent diagnoses were acutely inflamed gallbladder, perforated gastric or duodenal ulcer, acute appendicitis, carcinoma of the stomach or pancreas, and acute peritonitis.¹ This experience closely resembles that in Godfrey's review¹⁷ about 10 years later (1941-

1944). He feels that the more severe cases of acute pancreatitis, particularly in men, simulate perforated peptic ulcer, and the less severe cases simulate acute cholecystitis. This may be due to the more common association of acute pancreatic edema with gallbladder disease. In the present series of 13 surgically proven cases of acute pancreatic edema, only 2 were without known biliary disease. In contrast are the 22 cases of acute pancreatic necrosis, in which disease of the bile passages was found in only 8 cases. In the group of operative cases in which pancreatitis was the most serious lesion, a correct preoperative diagnosis was made in 5 (or 26 per cent) and mentioned in 2 additional cases. However, in the group of 10 patients who were not operated upon and came to postmortem examination the correct diagnosis was made in none and was mentioned in only 1. The most common errors in diagnosis were the same for the operated and nonoperated groups. They were, in order of frequency, acute appendicitis with or without rupture and peritonitis, gallbladder disease (which was either less significant than the pancreatitis or not present at all), perforated peptic ulcer, and intestinal obstruction. When there was significant and active gallbladder disease and only mild acute pancreatic edema, I do not feel that the error in diagnosis in omitting the pancreatitis is worth treating as an error, and it was not so treated in this group. There were 5 cases of this type.

In reviewing the symptoms, I found the sudden onset of abdominal pain to be certainly the most constant finding and almost invariably present unless there was some bizarre complication. Every case but that of the 1 psychotic patient and the 2 patients in diabetic coma complained of abdominal pain in the present series. Most commonly the pain was epigastric or poorly localized in the upper abdomen, but in about one half of these cases it either shifted or radiated, most commonly to the back or right upper quadrant. Occasionally the pain went to the left upper quadrant, lower abdomen, right shoulder, or

even became diffuse. Vomiting was reported in all but 5 cases, and in about one half of the others it was very severe.

It is a well-known fact that despite the severity of this disease, it is retroperitoneal in onset and does not often cause true abdominal rigidity. Since rigidity is so characteristic of a perforated peptic ulcer this point is of great value. However, 7 patients of the present series had true rigidity. More typical was a marked voluntary muscle spasm with considerable tenderness in the upper abdomen, usually most prominent in the epigastrium. Of the 11 cases in which this was noted specifically to be marked in the right upper quadrant, 10 cases had proven gallbladder disease in association. In Puestow's series⁴ also, those patients with tenderness chiefly in the right upper quadrant had concomitant gallbladder disease. There were variations in a number of cases as to localization similar to that described for the pain. It was prominently noted in several charts how the patient preferred to lie quietly because of aggravation of the pain by deep breathing or by movement. Only in the psychotic patient and in 1 patient with diabetic coma was it mentioned that no tenderness or spasm existed.

The temperature on hospital admission was under 100° F. in over three fourths of the patients studied, although there was usually a slight elevation. In the 17 patients in whom peristaltic activity was mentioned, 13 were found to have none or infrequent peristaltic sounds, 1 a hyperactive peristaltic pattern, and 3 normal peristaltic sounds. The pulse was not remarkable. In only 1 case was a periumbilical bluish discoloration noted. McWhorter¹ found it in 2 of his 64 cases. Cox¹⁸ states that, although the flank discoloration is universally agreed to be due to direct extraperitoneal spread of blood and pancreatic secretion, the umbilical discoloration (Grey Turner or Cullen's sign) is less easily explained. It may be due to a pathologic variation in the disease or, and this sounds more plausible, to an anatomic variation at the umbilicus. For the latter he quotes Poirier's (1912) description

of an umbilical fascia (a thickening of the transversalis fascia) which in some adults does not completely cover the umbilical ring, thereby making a direct continuity at the umbilicus between the extraperitoneal and subcutaneous tissues. The 1 case described in the present series had an umbilical omental hernia. Jaundice was a definite finding in only 3 cases of the present series, and all of these had proven gallbladder disease. It was likewise an infrequent finding in the series of McWhorter¹ and Puestow.⁴

It may be seen from the foregoing clinical descriptions in the present series that acute pancreatitis can be considered as a clinical diagnosis in several varying types of patients. Most cases will be associated with definite gallbladder disease. In this large group most of the patients will present histories and physical signs not far removed, if at all, from the typical cases of acute cholecystitis and/or cholelithiasis. Many of these, in fact, will have only mild degrees of pancreatic edema, and their associated gallbladder disease would seem equally important. However, there are a considerable number of these patients with gallbladder disease who will present a bizarre story or will be much sicker than the usual case of acute cholecystitis, thereby bringing up the problem of an "acute abdomen" or intestinal obstruction. They may even be in shock or near to it, and it is in these cases that the acute pancreatic necrosis is found. There is another group of severely ill patients with a marked alcoholic history. These patients will give a fairly good story for acute pancreatitis and have a high mortality rate. This leaves a minority group of cases which will include most of those patients in middle age in whom the findings are those of typical acute pancreatitis without gallbladder disease, and the miscellaneous group usually at the extremes of age without any known common denominator and often presenting a very confusing story.

In the past history of this disease there was a time when only the acute hemorrhagic pan-

creatitis syndrome was described. This "shock-like" abdominal catastrophe is definitely not the commonest form as we know the disease today. Eight patients of the present series were in shock-like states, and the 6 of these who had acute pancreatic necrosis did not survive. To separate acute pancreatic edema from hemorrhagic necrosis as another disease is impractical in that one seems to be but a stage of the other and the clinical symptomatology is very similar except in degree. Yet they often can be separated on a clinical basis by their course. It should be restated (because of this report and previous discussions^{19, 20}) that cases of acute pancreatic edema more frequently give a history of previous attacks than do those with hemorrhagic necrosis. A comparison of the cases of the patients who come to autopsy with the more numerous patients who survive may be made from figure 1.

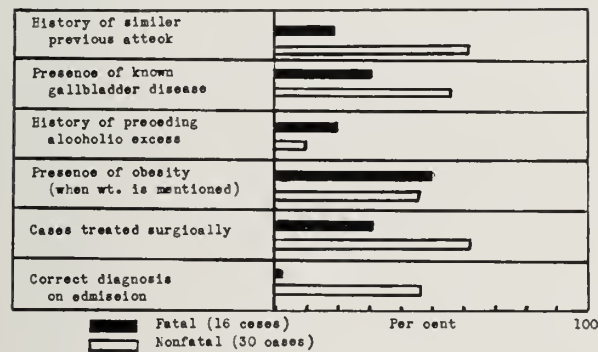


FIG. 1. Comparison of fatal and nonfatal cases of acute pancreatitis.

In discussing pancreatitis in geriatric practice, Johnson and Davis²¹ stated that "it is doubtful if there is another laboratory test nearly as specific and trustworthy as the serum amylase test if it is done early enough." The serum amylase rises significantly in the first 2 or 3 days after symptoms begin and later falls to normal. This serum amylase (diastase) appears to be identical with salivary and pancreatic amylase, but its origin is obscure, because it is maintained at an approximately normal level after removal of the pancreas and salivary

glands. Nevertheless, acute disease of these glands may result in temporary diffusion of amylase into the blood.²² Although Polowe²³ lists 15 causes for an increase in serum amylase (the most important being acute pancreatitis, pneumonia, perforation of peptic ulcer into or near the pancreas, duodenal ulcer, high intestinal obstruction, salivary gland disease, impaired renal function, and obstruction of the common bile duct), he states that "as we gained experience with the interpretation of blood amylase activity we discovered that a normal blood amylase is a true source of comfort." In explaining the elevated amylase in high intestinal obstruction, he felt it conceivable that pancreatic enzymes may be reabsorbed into the general circulation from severely distended small intestines before viability of their walls is lost. Crandall and Cherry²⁴ found an immediate increase in blood amylase after ligation of the common bile duct (in dogs) with double the normal value on the second to fourth day. The method of Elman for the quantitative determination of amylase consists in determining the amount of sugar formed by incubation of blood and starch suspensions. Normally 70 to 200 mg. of sugar will be formed by the action of 100 c.c. of blood. The more commonly used method of Somogyi measures the time required for complete depolymerization of starch with iodine used as an indicator. Expressed in terms of units of diastatic activity the normal value is 60 to 180 units per 100 c.c. Values above 200 and below 60 units are distinctly abnormal.²² Variations in methods and standards individualize reports, and the normals should be stated with the results. Cantarow and Trumper²² believe that no increase in serum amylase within the first 6 to 24 hours after the onset of the acute symptoms almost certainly excludes the diagnosis of acute pancreatitis, except in rare instances of extensive destruction of acinar cells. Wohlge-muth found that urine normally contains 8 to 32 units of amylase per c.c. Because its immediate source is the blood stream, its level tends to

parallel that of the serum except in cases of renal insufficiency.

Although all of the present series of cases are those accumulated since 1940 and are from hospitals used in part for teaching purposes, there are only 20 cases with serum amylase values reported. This is in keeping with the large number of diagnostic errors in this disease and shows how often it is not even strongly considered as a possibility. The test was carried out in only 3 cases of acute pancreatic necrosis. Two or more analyses were done within 24 hours of onset in each of these cases and showed marked elevation. Two of these cases demonstrated gallbladder disease at operation, and in 1 case the test performed 10 days later was normal. In the cases of acute pancreatic edema no normal values were found in the first 24 hours and in only 1 case was the value normal at 48 hours. In only one case did it remain elevated for 3 days in the 12 recorded analyses done 3 days or later after the onset of symptoms. In these 17 recorded cases of pancreatic edema, 7 were operated upon and 5 were shown to have gallbladder disease in association.

Although the serum lipase increases promptly in acute pancreatitis, its rate of fall is said to be much slower. Its main handicap lies in the 24-hour period necessary to obtain the result. Only twice was it done in the present series, and it was normal on both occasions (the third and fifth day after onset).

White blood cell counts over 10,000 were recorded in almost 80 per cent of these cases and usually ranged between 10,000 and 20,000. Urinalysis almost always showed albuminuria, frequently casts, and in 9 cases glycosuria before any intravenous glucose. Two of the cases of glycosuria were the 2 cases in which diabetic coma ensued. Excluding the 1 other known diabetic (3 in all) in this series, blood sugar values were determined on 11 patients. Two of the 5 taken in the first 24 hours were elevated and several were elevated after several days, although most were normal. The blood nonprotein nitrogen done in 3 cases was normal. One culture

and smear of abdominal fluid was negative and another showed gram-positive bacilli. Serum calcium values, which are often depressed in this disease,²⁵ were not recorded in any of these cases.

The 3 roentgen findings most suggestive of acute pancreatitis as already given in the literature²⁶ are (1) tender tumefaction of the pancreas found during fluoroscopy, the most valuable finding since it is pathognomonic, (2) changes in the stomach and duodenum, and (3) evidence of localized or generalized ileus. Flat plate of the abdomen was reported negative in 11 of these cases, in 4 others the films were reported to show ileus, and in 1 case they suggested "early small bowel obstruction." A search for pancreatic stones was negative in 2 cases. One upper gastrointestinal X-ray series in the acute stage of pancreatic necrosis revealed "no evidence of pressure on the duodenal loop by the pancreas."

TREATMENT

The condition of acute pancreatitis has in the past and occasionally in the present been treated as a surgical emergency. With the separation of cases of acute edematous pancreatitis, conservative treatment has been recommended. Regardless of the types of therapy employed, the average mortality in acute pancreatic necrosis has been near 50 per cent and in acute edematous pancreatitis quite certainly less than 10 per cent. As Cole²⁷ pointed out in 1938, the mortality rates of hemorrhagic pancreatitis vary so much in different reports that it is extremely difficult to use them in determining whether immediate operation or conservative treatment is the one of choice. The conservative handling he recommended for acute edematous pancreatitis would certainly not be significantly different from the one recommended today, i.e., adequate morphine for pain, immediate blood sugar and amylase determinations, X-ray examination for gas under the diaphragm, nothing by mouth, and the use of Wangenstein suction. Since 1934 there have been only 2 operations during the

acute episode at the Jewish Hospital in St. Louis. One of the patients operated on died, and there was only a total of 3 deaths in 85 attacks. This group of reporters²⁸ believes that acute pancreatitis, as a rule, subsides spontaneously but tends to recur in about one half of the cases. They did not feel that cholecystectomy, with or without exploration of the common duct, prevented the recurrence or onset of acute pancreatitis. In their experience recurrent pancreatitis tended to be a self-limited disease. This idea is in contrast to the opinion of Morton (1945)²⁰ that whenever the diagnosis of acute pancreatic necrosis is suspected operation is indicated as soon as the patient can be properly prepared for it. Although McWhorter¹ in 1932 said that it was evident that deaths were more dependent on the extent of pathologic involvement than the time elapsing from onset to operation, he advised operation in all acute cases of pancreatitis, if possible, as an emergency procedure. The trend in recent years has been favoring conservatism in uncomplicated cases because of its lowered mortality.^{3, 4, 17, 29, 30} In fact, the major theme expressed today is that the primary indication for early operation in acute pancreatitis is a questionable diagnosis. If such catastrophes as a perforated peptic ulcer can be eliminated, supportive therapy, with demerol, or morphine and atropine, and continuous gastrointestinal suction is used. Those who make a clinical differentiation of acute edematous and necrotic pancreatitis are the principal advocates of operation in the necrotic type after the initial shock is overcome.^{20, 31} Incising the peritoneal covering of the pancreas to relieve its secretory tension has fallen into disfavor,^{3, 31} and cholecystostomy or other methods of biliary decompression are more commonly practiced in the acute stage when there is biliary tract disease. If fever and other symptoms continue after a week or more, surgical drainage is frequently necessary. Since roentgen ray therapy has favorably influenced acute nonsuppurative parotitis, some reports have presented the effect of this treatment for acute pancreatitis. On a limited

number of experimental observations (on dogs), Chisholm and Seibel³² showed that too large a dose of X-rays or several exposures may defeat the purpose for which it is administered, i.e., to inhibit enzyme production in the already damaged pancreas. A single treatment, however, produced less rise in serum amylase than was found in a control series, although all of these dogs at autopsy showed moderately severe pancreatic necrosis.

In the present series mortality statistics have been given in the discussion of pathologic considerations. From these cases it would appear that operative intervention is not statistically inferior to the nonoperative treatment in absolutely proven cases³³ of acute pancreatic necrosis. Those patients who were not operated on and survived were considered as cases of acute pancreatic edema, largely because of their more benign clinical picture. This result may be misleading, since in the group of 10 patients who were not operated on and came to post-mortem examination the correct diagnosis was not made in any. Thus, we could not list these nonoperated patients as really having the recommended conservative treatment. Of the 14 cases in this series in which the admitting diagnosis was correct, there were no deaths, either in the conservatively treated group (8) or in the operated group (6). The average hospital stay of the conservatively treated and correctly diagnosed patient was about 7 days. The average hospital stay of the patient operated on and whose disease was correctly diagnosed was about 34 days, even though 5 of these 6 patients had only pancreatic edema (usually with gall-bladder disease). The operative procedures most commonly employed were (1) cholecystostomy (11 patients), (2) laparotomy only (7 patients), and (3) placing of drains in the lesser peritoneal sac (4 patients). One patient with hemorrhagic necrosis died on the table, and the only patient in the series who was operated on while in shock died the following day. All of the patients operated on who died were subject to surgery within 24 hours after admission to the hospital, although

the average patient did not come to operation until the fourth hospital day.

COMMENT

Acute pancreatitis has lost much of its ominous meaning, because of the frequency of acute pancreatic edema. This type (or stage) of pancreatitis is seldom fatal. It has appeared from a maze of dyspeptic symptoms and biliary diseases largely because of the serum amylase test. This very valuable test has been repeatedly shown to be elevated in an extremely high percentage of cases when it is done within 24 to 36 hours of the onset of symptoms. It has been of greater value in ruling out pancreatitis than in diagnosing it. Since surgical intervention is the problem immediately presented in most of these cases, it is of interest to know the value and pitfalls of this test for surgical diagnosis. This and other reported series have shown that the most common errors in diagnosing acute pancreatitis are acute gallbladder disease and an "acute abdomen" most often resembling appendicitis or perforated peptic ulcer. In the former the serum amylase may be elevated, but the disease is an unusual surgical emergency. In the latter the serum amylase almost surely will be normal unless it is the unusual case of a perforation of a peptic ulcer into the pancreas. When there is doubt, of course, surgery is mandatory in the case of the "acute abdomen."

Acute pancreatitis has a set of symptoms of its own, but because in two thirds of cases it is associated with biliary disease these symptoms are often masked by or extended by the associated disease. For example, jaundice and marked right upper quadrant tenderness usually implicate biliary disease regardless of the serum amylase. In every case of acute gallbladder disease one should consider the element of pancreatitis and vice versa. In those cases without gallbladder disease in which one is less inclined to think about pancreatitis he is usually aided by the more typical symptoms of pancreatitis,

for example, a history of alcoholism or over-indulgence in eating, with epigastric pain radiating to the back, and intense nausea and vomiting, but no abdominal rigidity or "obstructive" peristaltic tinkles. However, as with all diseases, the extremes of age will forever pose a problem in diagnosis.

SUMMARY

Forty-six cases of acute pancreatitis collected since 1940 from 4 hospitals in the District of Columbia have been reviewed. As in most previous series, there was associated gallbladder disease in about 60 per cent of the cases. Also, similar to other series was a peculiar lack of gallbladder disease in those cases with marked alcoholic histories, illustrating the independence of these factors. There was a mortality rate of 73 per cent in the group of patients with pancreatic (hemorrhagic) necrosis, but no deaths in the group classified as acute edematous pancreatitis (of which 13 were operated on). The original diagnosis was correct in 30 per cent of cases. The commonest errors in diagnosis were acute appendicitis with or without rupture and peritonitis, gallbladder disease, perforated peptic ulcer, and intestinal obstruction. Serum amylase values were reported in only 20 of these cases, but they were always elevated when done within 36 hours of the onset of symptoms and usually fell to normal by the third day. Although the current literature indicates a strong trend toward the conservative treatment of acute pancreatitis, a valid comparison between operative and nonoperative treatment could not be made in this series. This is because the diagnosis was not correct for any of the 10 patients with pancreatitis who were not operated on and who came to autopsy.

BIBLIOGRAPHY

1. McWHORTER, G. L.: *Arch. Surg.*, 1932, **25**, 958.
2. EGDahl, A.: *Bull. Johns Hopkins Hosp.*, 1907, **18**, 130.

(Continued on page 671)

A BRIEF REVIEW OF THE USE OF ADRENAL CORTICAL STEROIDS AND RELATED SUBSTANCES IN THE TREATMENT OF RHEUMATIC FEVER AND RHEUMATOID ARTHRITIS

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CERTAIN adrenal cortical hormones and related substances are currently being employed in increasing extent in the treatment of rheumatic fever and rheumatoid arthritis. In so far as much uncertainty exists, as evidenced by various and sometimes apparently conflicting interpretations of reported observations, it is beyond the scope of this brief discussion to undertake comprehensive consideration of endocrine physiology which eventually, at least, may define the alterations in metabolism induced by such substances. Furthermore, in view of the paucity of observations as yet available, no attempt, other than mention of some obvious possibilities, will be made to indicate the rationale in the use of the therapeutic agents in question.

Adrenocorticotrophic hormone (ACTH) is a well recognized entity extractable from animal anterior pituitary in relative purity (except for the presence of slight activity attributable to posterior pituitary substance) with regard to its physiologic effect in stimulating secretory function of the adrenal cortex.

Secretions of the adrenal cortex are usually considered to comprise three groups:

1. Steroids which predominantly affect carbohydrate metabolism: 11-oxysteroids (such as 11-dehydrocorticosterone and corticosterone) and

the more active 11,17-oxysteroids (such as 17-hydroxy-11 dehydrocorticosterone and 17-hydroxycorticosterone). These substances accelerate conversion of protein to carbohydrate and enhance the utilization of fat, thus sparing carbohydrate. The essential process involved is descriptively referred to as "gluconeogenesis." There is coincident increase in blood glucose and liver glycogen store as well as marked increase in urate excretion. Only the 11,17-oxysteroids induce lysis of fixed lymphoid tissue, transitory lymphocytopenia, and almost complete disappearance of eosinophilic cells from the circulation.

2. Steroids predominantly of electrolyte-regulating effect: 11 desoxycorticosterone (which has been synthesized) is the most effective. Retention of sodium and chloride and increased excretion of potassium are induced. Plasma and extracellular tissue fluid volume are coincidentally increased.

3. Steroids especially active as androgens: These are related in chemical structure to testosterone, but have an oxygen group at position 11. Members of this group of steroids appear to have effects (termed androgenic or anabolic) similar to those of testicular androgens. They cause masculinization, with retention of sodium, potassium, phosphorus, nitrogen and chloride.

The relative degree of effect being exerted

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by each of the groups of substances just mentioned may be estimated as follows:

a. Of the carbohydrate-regulating steroids by observing variations in the urinary secretion of 11-oxysteroid, by determining variations in the number of circulating eosinophiles (in case of 11,17-oxysteroids), or by determining the urinary uric acid-creatinine ratio which reflects the degree of concentration in the blood of 11- as well as 11,17-oxysteroids.

b. Of the electrolyte-regulating steroids only by indirect methods, such as observation of alteration in mineral content of urine or sweat, changes in blood composition as determined by hematocrit volumes, and variations in body weight.

c. Of the androgenic substances (immediate effects) only as reflected in slight increase in urinary 17-ketosteroid excretion.

The foregoing summarizes portions of a recent study¹ considered most pertinent and is substantiated by data and references given there as well as by antecedent observations.²⁻¹⁶

TREATMENT OF RHEUMATIC FEVER AND RHEUMATOID ARTHRITIS

Although adrenal cortical extracts were used several years ago in the treatment of chronic arthritis,^{17,18} the conception of rheumatic fever, rheumatoid arthritis, disseminated lupus erythematosus, periarteritis nodosa, scleroderma, and possibly other pathologic entities as related "collagen diseases"¹⁹ and the application of steroids of the types mentioned particularly in their treatment is of more recent date. In the present year Hench, Kendall et al²⁰ found 17-hydroxy-11 dehydrocorticosterone ("Compound-E, of Kendall") a most effective steroid in the treatment of rheumatoid arthritis (corticosterone and dehydrocorticosterone proved comparatively inactive). The substance (used most satisfactorily as the acetate) in relatively fine particulate state, found essential, was suspended in physiologic saline at a concentration of 25 mg. per cu. c.c. and administered by intra-

muscular injection. The minimum effective daily dose (usually given in 2 portions with a 12-hour intervening period) proved to be approximately 100 mg. It is noteworthy that the quantity required was about 5 to 10 times that which, it is estimated, might be produced daily in the human body in the state of health.¹ In general, all manifestations of the disease regressed but in most instances remained in abeyance only during that period of time in which administration of the "maintenance dose" was continued. Upon the same occasion it was reported that ACTH administered in a similar way and in approximately equivalent doses exerted a comparable effect in rheumatoid arthritis.

Shortly thereafter, investigators of the same group described the effects of treatment with 17-hydroxy-11 dehydrocorticosterone, similarly administered but in doses approximately twice as large, in 3 patients with rheumatic fever.²¹ The report that recovery was thereby greatly accelerated was, however, in this instance much less conclusive, in so far as the individuals treated were suffering first attacks of the disease at an age relatively near adulthood, circumstances which increase the possibility that illness would naturally follow a favorable course. More recently, and from another source,¹ although therapeutic effectiveness of ACTH, administered at 6-hour intervals and in daily doses of 40 mg. to 3 other rheumatic fever patients, was reported, details which would be of great assistance in evaluating the results were not included.

The accounts mentioned and others describing the therapeutic effectiveness of ACTH in rheumatoid arthritis^{1, 22, 23} would appear to establish this fact as well as the comparable, similar effectiveness of 17-hydroxy-11 dehydrocorticosterone. On the basis of evidence available to date, however, it does not appear that therapeutic effectiveness of these substances in rheumatic fever can be regarded as having been established with certainty.

Delta 5 pregnenolone,^{3, 17} a steroid structurally related to progesterone, when used as the sole

medication (acetate in oil, 50 to 150 mg. per day intramuscularly in 1 dose) for patients with ankylosing spondylitis^{24, 25} or in conjunction with testosterone propionate²⁶ in the entity just mentioned as well as rheumatoid arthritis, rheumatic fever and other conditions, has been reported therapeutically effective.

Similar results followed treatment with testosterone propionate (50 mg. per c.c. in oil intramuscularly, of volume providing single daily doses of 50 to 300 mg.), usually combined with estradiol benzoate, 0.033 mg. or more per day.²⁶ When such combined medication was used, the minimal effective dose of the first-named compound (androgen) was determined by trial, and while this was continued at a selected level, administration of the second (estrogen) was started, gradually increased, and finally stabilized at what was observed to be the maximum tolerated amount for each individual.

SIDE-ACTIONS, TOXICITY, AND INTOLERANCE

Although definite evidences of toxicity were not described during the courses of medication with 17-hydroxy-11 dehydrocorticosterone, slight edema ("rounding of the facial contours") was occasionally apparent in short-term (approximately 1 month) therapy. Incident to prolonged administration, transient edema occasionally developed, and in 1 female patient "there appeared some acne, mild hirsutism."²⁰ Evidence of depressed adrenal function can be demonstrated but is not reported to be of sufficient severity to be provocative of symptoms.

Although the occurrence of serious evidences of toxicity during ACTH therapy is not described, a rapid gain in weight (water retention), probably due in part to posterior pituitary effects inherent in such preparations, is observed in most patients treated. It is to be borne in mind that such a course of events might prove disastrous in a patient with incipient cardiac failure. The administration of this hormone to diabetics would probably be contraindicated. In the case of children the possibility of interference with

growth must be considered a potential consequence of long-continued administration.

Initial symptoms of overdosage with testosterone propionate described²⁶ were "edema, drowsiness, sense of ill-being, tinnitus and mild exacerbations of rheumatic symptoms"; later effects included "hoarseness, acne, hypertrophy of the clitoris, edema of the labia minora, tenderness of the nipple and darkening of the areola." Because of virilizing effects to be apprehended, administration of this substance was never continued longer than 4 weeks in women. Evidences of estrogen overdosage (during estradiol benzoate medication) were "a sense of ill-being, nausea, and a return of rheumatic complaints."²⁶

Several observers state that no undesirable side-effects were observed during courses of pregnenolone administration.

MECHANISM OF THERAPEUTIC ACTION

In the light of present, incomplete knowledge, an attempt to consider comprehensively the mechanisms whereby therapeutic effect is achieved through the action of adrenocortical hormones does not appear profitable. It may be mentioned for example, however, that in rheumatic fever²⁷ and during the course of experimental hemolytic streptococcal infections provocative of degenerative lesions²⁸ somewhat resembling those of this disease, increase in total metabolic rate²⁹ and of glucolysis in particular³⁰ has been associated. As indicated early in this brief review, those adrenocortical steroids which are most active in producing gluconeogenesis are generally the more effective as therapeutic agents in the conditions considered. It must be recognized that proof of the validity of a mechanism of action implied by these statements cannot at present be adduced. On the other hand, although adrenal cortical hormones demonstrably accelerate antibody production or release,^{31, 32} the effect of such influence during the course of diseases in which the character of immunologic events is so incompletely comprehended, as it is in rheumatic fever and rheuma-

toid arthritis, could only be the subject of speculation.

SUMMARY

A classification of adrenocortical hormones is outlined.

The therapeutic effects of these and related substances in rheumatic fever and rheumatoid arthritis are briefly reviewed. Doubt is expressed that attainment of such effect in the first-mentioned condition has been demonstrated with certainty to date.

Dosage, side-actions, and possible development of "tolerance" with respect to each of these substances are referred to. As these hormones become available commercially, such matters should be given earnest consideration by those physicians who anticipate using them.

BIBLIOGRAPHY

1. THORN, G. W., AND OTHERS: *New England J. Med.*, 1949, **241**, 529.
2. BENNETT, L. L., AND LI, C. H.: *Endocrinology*, 1946, **39**, 63.
3. BEST, C. H., DALE, H. H., HOET, J. P., AND MARKS, H. P.: *Proc. Roy. Soc.*, 1926, s.B., **100**, 55.
4. BURNS, T. W., AND OTHERS: Abstracted, *J. Clin. Endocrinol.*, 1948, **8**, 590.
5. EVANS, G.: *Am. J. Physiol.*, 1936, **114**, 297.
6. HOFFMAN, M. M., AND BROWNE, J. S. L.: *J. Clin. Endocrinol.*, 1948, **8**, 591.
7. INGLE, D. J.: *Endocrinology*, 1941, **29**, 649.
8. INGLE, D. J.: *Am. J. Physiol.*, 1941, **133**, 676.
9. INGLE, D. J.: *Endocrinology*, 1942, **30**, 246.
10. INGLE, D. J., SHEPPARD, R., EVANS, J. S., AND KUIZENGA, M. H.: *Ibid.*, 1945, **37**, 341.
11. INGLE, D. J., LI, C. H., AND EVANS, H. M.: *Ibid.*, **39**, 32.
12. LONG, C. N. H., KATZIN, B., AND FRY, E.: *Ibid.*, 1940, **26**, 309.
13. REICHSTEIN, T.: *Roche Review*, 1940, **4**, 138.
14. REICHSTEIN, T., AND SHOPPEE, C. W.: *Vitamins & Hormones*, 1943, **1**, 340.
15. STEIGER, M., AND REICHSTEIN, T.: *Helvet. chim. acta*, 1937, **20**, 1164.
16. WELLS, B. B., AND KENDALL, E. C.: *Proc. Staff. Meet., Mayo Clin.*, 1940, **15**, 324.
17. LYON, E.: *Acta. med. orient.*, 1944, **34**, 219.
18. WATSON, E. M.: *Endocrinology*, 1940, **27**, 521.
19. BAEHR, G., AND POLLACK, D.: *J.A.M.A.*, 1947, **134**, 1169.
20. HENCH, P. S., KENDALL, E. C., SLOCUMB, C. H., AND POLLEY, H. F.: *Proc. Staff Meet., Mayo Clin.*, 1949, **24**, 181.
21. HENCH, P. S., AND OTHERS: *Proc. Staff. Meet., Mayo Clin.*, 1949, **24**, 277.
22. MARKSON, D. E.: *J. A. M. A.*, 1949, **141**, 458.
23. THORN, G. W., FORSHAM, P. H., WARREN, J. E., AND BAYLES, T. B.: *Prelim. Abstr., 7th Internat. Cong. Rheumat. Dis.*, 1949, p. 84.
24. DAVISON, R. A., KOETZ, P., AND KUZELL, W. C.: *J. Clin. Endocrinol.*, 1949, **9**, 79.
25. DAVISON, R. A., AND KOETZ, P.: *Prelim. Abst., 7th Internat. Cong. Rheumat. Dis.*, 1949, p. 61.
26. ISHMAEL, W. K., HELLBAUM, A., KUHN, J. K., AND DUFFY, M.: *J. Oklahoma M. A.*, 1949, **42**, 434.
27. SCHULTZ, M. P.: *Pub. Health Rep.*, 1939, **54**, 373.
28. SCHULTZ, M. P., AND ROSE, E.: *Ibid.*, 1939, **54**, 657.
29. SCHULTZ, M. P.: *Ibid.*, 1939, **54**, 1205.
30. SCHULTZ, M. P.: *Ibid.*, 1939, **54**, 527.
31. CHASE, J. H., WHITE, A., AND DOUGHERTY, T. F.: *J. Immunol.*, 1946, **52**, 101.
32. FISCHER, E. E., AND OTHERS: *Ibid.*, 1949, **61**, 89.

THE COMPLICATIONS OF MEASLES IN CHILDHOOD

A Review of Sixty Cases

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THIS report represents a review of 60 cases of complicated measles occurring in children culled from the records of patients admitted to the Children's Hospital, Washington, D. C. during the 10-year period ending December 31, 1948. It has been estimated that approximately five million cases of measles occur in the United States every year.¹ Although the disease itself may be quite severe, it is rarely fatal. Death is usually due to one of the complications which may accompany the disease. It becomes readily apparent from table 1 that the complications which most frequently lead to hospitalization are bronchopneumonia, encephalitis, and otitis media. These complications, or a combination of them, occurred in 56 of the 60 cases reviewed (93.3 per cent).

TABLE 1
The Distribution of Complications as They Occurred in 60 Children with Measles

COMPLICATION	NO. OF CASES
Bronchopneumonia.....	23
Encephalitis.....	19
Bronchopneumonia and otitis media.....	9
Otitis media.....	4
Tonsillitis (streptococcal).....	2
Bronchopneumonia and encephalitis.....	1
Stomatitis.....	1
Vomiting and dehydration.....	1
Total.....	60

The age, sex and racial distribution are indicated in table 2. Approximately 47 per cent of

TABLE 2
Age, Sex, and Racial Distribution of the Complications of Measles as They Occurred in 60 Children

AGE GROUP		NO. OF CASES		
Under 1 yr.....				6
1-2 yrs.....				15
3-4 yrs.....				13
5-6 yrs.....				9
7-8 yrs.....				11
Over 9 yrs.....				6
Total.....				60
		WHITE	COLORED	TOTAL
Male.....		22	6	28
Female.....		25	7	32
Total.....		47	13	60

these complications occurred in the age group from 1 to 5 years, and one third of the patients were in the 5- to 9-year age group. Only 6 of the children were under 1 year of age, the youngest being a 6-month-old white female whose measles was complicated by otitis media and bronchopneumonia. Eighty-five per cent of the children with encephalitis were over 4 years of age. On the other hand, the respiratory complications, e.g., tonsillitis, otitis media, and bronchopneumonia were more common in patients

under 5 years of age and accounted for 75 per cent of the cases with these complications. No case of respiratory disease occurred in a child over 8 years of age; no case of encephalitis occurred in an infant under 1 year of age. There was no preponderant predilection for either sex, but the racial distribution indicates that the complications of measles are almost 4 times more common in white children than in colored children. This finding is more apparent than real and is the result of a combination of two factors:

1. The ratio of white to colored admissions at the Children's Hospital is 2:1.

2. The limited isolation facilities make it necessary to transfer most of the patients seen in the outpatient department to one of the other hospitals.

The seasonal incidence follows closely the occurrence of measles in this area. No cases were admitted to the hospital during the months of August, September and October. Hospital admissions rose sharply in December and reached a peak in January, leveling off during the remaining months. The encephalitic group were more or less equally distributed over the November to July period, whereas the respiratory complications were confined to the period between December and April, the peak of incidence occurring in December, January and February.

Since the most common complications of measles are bronchopneumonia and encephalitis, the greater bulk of this report will be confined to a statistical review of these two diseases with the view of pointing out interesting trends in etiology, symptomatology, laboratory findings, course of the disease, therapy, and outcome.

Bronchopneumonia.—It is common knowledge that the measles' virus itself often produces an inflammatory reaction within the respiratory tree. Kohn and Koiransky² have satisfactorily demonstrated that if roentgenograms are made routinely during the course of measles, pneumonic infiltrations are found in approximately one fourth of the cases in the prëruptive stage, and in about one half of the cases as the eruption subsides. Therefore, the diagnosis of secondary

bacterial pneumonia during the course of measles is not an easy one to establish. Our criteria for diagnosis were based on: (1) the symptomatology, (2) the laboratory findings, and (3) definite X-ray evidence of pneumonic involvement.

TABLE 3
*Age, Sex, and Racial Distribution of 32 Children with
Bronchopneumonia and Measles*

AGE GROUP	NO. OF CASES		
Under 1 yr.....	3		
1-2 yrs.....	10		
3-4 yrs.....	7		
5-6 yrs.....	5		
7-8 yrs.....	7		
Over 8 yrs.....	0		
Total.....	32		

	WHITE	COLORED	TOTAL
Male.....	12	5	17
Female.....	11	4	15
Total.....	23	9	32

Table 3 gives the age, sex, and racial distribution of bronchopneumonia. There were 32 children who had this complication at some time during the course of their measles. About one third of the cases were in infants in the 1- to 2-year age group. Again, no significant predilection for either sex was noted. However, 23 of the patients were white and 9 were colored.

The time of occurrence of bronchopneumonia in relationship to the onset of the rash of measles demonstrated a definite and interesting trend. Only 3 of the patients began to show symptoms of pneumonic involvement in the pre-eruptive stage. In 1 the symptoms occurred 4 days prior to the eruption, and in the other 2 patients 3 days elapsed between the onset of pneumonitis and the exanthem. Twenty-nine children had lung involvement in the eruptive or posteruptive stages of measles. One child, a 3-year-old white boy, contracted bronchopneumonia 14 days after the onset of the eruption. Eighteen of the patients developed this complication within 3 days after the appearance of the rash.

The symptomatology and physical findings were similar to those of any bronchopneumonia in a child (table 4). Dyspnea, chest pain, flaring

TABLE 4

Abnormal Physical Findings in 32 Children with Bronchopneumonia and Measles

PHYSICAL FINDING	NO. OF CASES	PER CENT
Râles	30	93.7
Dyspnea	23	71.8
Altered breath sounds	20	62.5
Impaired resonance	20	62.5
Cyanosis	7	21.8

of the alae nasi, fever, and retractions of the chest wall were present in approximately 80 per cent of the patients. Cyanosis invariably indicated bronchopneumonia and was present in 7 of the children. Râles of varying nature were present in 30 of the cases. These were followed in order of frequency by dyspnea, altered breath sounds, dullness to percussion, and cyanosis. There was no case in which a pleural effusion or empyema could be demonstrated.

Almost all of the patients that were followed with serial blood counts showed a leukocytosis at some time during the course of pneumonic involvement. The white blood cells varied between 10,600 and 16,200 per cu. mm. of blood. There was an increase in the neutrophilic granulocytes and a shift to the left in the Schilling index. In approximately half of the cases a hemogram was done at the onset of pneumonia. These children showed a normal leukocyte count or a moderate leukopenia with an increase in the mononuclear forms. When frequent leukocyte counts were made thereafter, secondary bacterial invasion was indicated by the development of a leukocytosis and an increase in the polymorphonuclear leukocytes.

Nose and throat cultures were performed in 63 per cent of the cases studied (table 5). By far the most common organisms isolated were the staphylococcus and the streptococcus. In many of the cases cultures resulted in a mixture of these pathogens. The bacteriologic studies are

essentially similar to those reported by Weinstein and Franklin.³ These investigators noted that despite the proved increase in susceptibility to infection with the beta-hemolytic streptococcus in measles, this pathogen was isolated in only a few of their cases. The commonest bacteria recovered on culture of the nose and throat were the alpha-hemolytic streptococcus and the nonhemolytic *Staphylococcus aureus*. Only 1 patient's culture yielded *Hemophilus influenzae*. The common nonpathogenic inhabitants of the nasopharynx, e.g., diphtheroids, *N. catarrhalis*, and the micrococcus, were recovered in a number of instances.

TABLE 5

Results of Nose and Throat Cultures in 20 Children with Bronchopneumonia and Measles

PATHOGENIC ORGANISM	NO. OF CASES	PER CENT
Streptococcus		
Alpha-hemolytic	10	50.0
Beta-hemolytic	3	15.0
Staphylococcus aureus		
Nonhemolytic	16	80.0
Hemolytic	8	40.0
Hemophilus influenzae	1	5.0

This study embraces the period when the sulfonamides, penicillin, and streptomycin came into common usage, and one of these therapeutic agents or a combination of them was utilized in the treatment of the bronchopneumonia. The dosage and therapeutic régime varied considerably, but in general depended on the age and weight of the patient and on the severity of the illness. Twenty patients received penicillin alone and 7 were treated with one of the sulfonamides. Four of the children were placed on a régime which included a combination of penicillin and one of the sulfa drugs. The remaining therapy was symptomatic and supportive. In general, the response was satisfactory. There were no fatalities from secondary bacterial pneumonia. No appreciable difference was noted in the response to the various therapeutic agents. The shortest period of treatment was 3 days; the longest course of therapy embraced a period of

9 days. One patient, a 3-year-old white girl, had *Hemophilus influenzae* isolated from her nasopharynx. She was treated with sulfadiazine and streptomycin and made an uneventful recovery.

Encephalitis.—This is the severest and most serious complication which occurs during the course of measles. The exact etiology is unknown. The most commonly held views are: (1) that the disease is actually due to the virus of measles, (2) that the measles virus activates another virus which is dormant in the patient, and (3) that the condition is due to an allergic response of the central nervous system to the virus of measles. The first view is the one most commonly accepted today. In the 10-year period covered by this series encephalitis complicated the course of measles in 20 of the patients studied.

An average of 8.6 days elapsed from the onset of catarrhal symptoms to the beginning of the encephalitic syndrome. Three cases occurred 5 days after the onset of measles, and 1 child developed encephalitis 14 days after the onset of illness. All of the children developed this complication after the exanthem made its appearance. Eleven patients developed symptoms during the eruptive stage of measles; the remaining 9 were noted to evolve after the eruption had reached its height.

Table 6 gives the age, sex, and racial distribution of encephalitis. No patient under the age of 1 year developed this complication. The youngest was a 20-month-old colored male. It is readily appreciated that 85 per cent of the cases of encephalitis occurred after the age of 4 years. There was no preponderance for either sex. However, 19 of the patients were white children.

TABLE 7
Abnormal Physical Findings in 20 Children with Encephalitis and Measles

PHYSICAL FINDING	PER CENT OF CASES
Nuchal rigidity.....	70.0
Fever.....	65.0
Listlessness, lethargy, and stupor.....	50.0
Deep reflex changes.....	45.0
Coma.....	40.0
Convulsions.....	40.0
Positive Babinski sign.....	35.0
Positive Kernig sign.....	30.0
Vomiting.....	25.0
Headache.....	20.0
Ataxia.....	20.0
Restlessness and irritability.....	20.0
Stiff back.....	15.0
Mental and speech changes.....	15.0
Urinary retention.....	10.0
Positive Brudzinski sign.....	10.0

Table 7 presents the signs and symptoms in the order of frequency. Fever, listlessness, lethargy, and stupor, convulsions, and coma were the most common findings. In 4 cases a major convulsive seizure was the first indication of encephalitis. Although it was not common in this series, urinary retention was present in 2 cases. The neurologic examination revealed that by far the most frequent finding was nuchal rigidity. This sign was absent most often in those cases in which heavy sedation had been used to control convulsive seizures.

The average spinal fluid showed an increased cellular content up to 160 cells per cu. mm. The differential distribution was about equal; 53 per cent of the cells was polymorphonuclear leukocytes, and 47 per cent were lymphocytes. The chemistry of the spinal fluid was most often un-

TABLE 6
Age, Sex, and Racial Distribution of 20 Children with Encephalitis and Measles

AGE GROUP	NO. OF CASES		
Under 1 yr.....	0		
1-2 yrs.....	2		
3-4 yrs.....	2		
5-6 yrs.....	5		
7-8 yrs.....	5		
Over 8 yrs.....	6		
Total.....	20		

	WHITE	COLORED	TOTAL
Male.....	8	1	9
Female.....	11	0	11
Total.....	19	1	20

changed, although an elevated protein content may be occasionally encountered. It must be pointed out that there were 4 patients in whom the spinal fluid was entirely normal.

Two of these children had residual findings when discharged from the hospital. One, a 5-year-old white boy, had a left-sided hemiplegia. The other, a 3-year-old white girl, was ataxic when discharged from the hospital. There was no correlation between spinal fluid changes and the severity of the encephalitic process. The patient with the most abnormal spinal fluid, a 7-year-old white boy whose spinal fluid contained 770 cells per cu. mm., had a rather mild encephalitis and was discharged with no residuals.

Time and circumstances did not permit a thorough investigation into the progress and severity of the encephalitic residua. Four children still had changes when they were discharged from the hospital. These changes included:

1. Mental alterations, e.g., regression and extreme emotional lability
2. Hemiparesis
3. Hemiplegia
4. Spastic paralysis of all extremities
5. Ataxia
6. Incontinence
7. Recurrent convulsive seizures.

The severest residua occurred in a 5-year-old white girl who had only 40 cells per cu. mm. in her spinal fluid. This child is still institutionalized. She shows extreme emotional lability, is subject to frequent major convulsive seizures, and has a left-sided hemiparesis.

Down through the years, as the new therapeutic agents became the vogue, they were employed one by one in the treatment of measles encephalitis. None of them appeared to exert a beneficial effect on the encephalitic process. The 2 deaths that occurred were in patients who received large amounts of immune gamma globulin. When respiratory complications were present, e.g., otitis media, tonsillitis, and/or bronchopneumonia, the sulfonamides, and more

recently penicillin, seemed to modify the course of these complications.

The 2 cases with death were as follows:

Case 1. P. G., a 6-year-old white boy, was admitted in 1944, 5 days after the onset of his illness and at the height of the morbilliform eruption. The presenting symptoms were fever of 102°F., lethargy, nuchal rigidity, and hyperactive reflexes. There were also signs of bronchopneumonia. Spinal fluid examination revealed 82 cells per cu. mm. of which 10 per cent were polymorphonuclear leukocytes and 90 per cent were lymphocytes. Protein and sugar content were normal. The patient received large doses of gamma globulin. There was increasing stupor, the temperature rose to 109°F., and the patient died during a convulsive seizure 11 days after admission.

Case 2. J. M., a 9-year-old white boy, was admitted in 1946, 7 days after the onset of his illness and during the eruptive stage of measles. He was in coma, and the temperature was 102.6°F. There was nuchal rigidity, spasticity of all extremities, and positive Kernig and Babinski signs. Spinal fluid examination revealed 310 cells per cu. mm., of which 82 per cent were polymorphonuclear leukocytes and 18 per cent were lymphocytes. The protein and sugar contents were normal. This patient also received gamma globulin. He had a stormy hospital course sparked by frequent major convulsive seizures. He died 31 days after admission during one of these convulsions.

The histopathology of measles encephalitis has recently been reported by Appelbaum and his associates⁴ in a detailed study of 7 necropsies. Their description differed considerably from the classic description. The one feature that was common to all cases was cellular infiltration of the walls of the small- and medium-sized veins in the gray and white matter of the brain. The most widespread distribution of these lesions occurred in those cases which progressed rapidly. The infiltrating cells were predominantly lymphocytes, but in some of the early cases a few polymorphonuclear leukocytes were encountered. A perivascular loss of myelin, which is the generally known histologic finding, was demonstrated in less than half of the patients. Demyelination was most severe in the case of longest duration. Other pathologic findings

included: (1) significant changes in ganglion cells characteristic of cellular degeneration in all cases, (2) a microglial response to the damage of myelin and cellular degeneration in all cases, (3) a cellular infiltration of the meninges in little over half the cases and (4) there were loose, fibrinous thrombi in a few veins in the demyelinated areas in some cases. It becomes evident that the change most common to all cases, early or late, are those of inflammation, viz., exudation (infiltration with cells from blood and lymph channels), alteration (degeneration), and proliferation (of local cells).

Other complications.—The other complications of measles are less common and certainly less spectacular than the 2 which have been reviewed in detail. Thirteen children developed otitis media during the course of their measles. In 9 of these patients the otitis accompanied bronchopneumonia. Four children had middle-ear infections alone of a severe enough nature to demand hospitalization. The time of occurrence of otitis media corresponded to that of the bronchopneumonia, the greatest number of cases developing at the onset or soon after the exanthem of measles appeared. All patients were treated with penicillin and/or one of the sulfonamides and terminated favorably without sequelae.

Two patients were hospitalized because of a severe tonsillitis. In both of these children a beta-hemolytic streptococcus was isolated on culture of the pharynx. This organism proved to be highly susceptible to penicillin. An ulcerative stomatitis occurred in 1 child, and vomiting and severe dehydration were the complicating features in another. Neither of these complications proved to be refractory to the ordinary methods of

therapy and are mentioned only for completeness.

SUMMARY

A study of 60 cases of complicated measles occurring in children admitted to the Children's Hospital of Washington, D. C. during the 10-year period ending December 31, 1948 has been presented.

The most common and most important complications of measles are bronchopneumonia, encephalitis, and otitis media.

The upper respiratory complications are more common in children under 5 years of age, whereas encephalitis occurs most often in children who have passed their fourth birthday.

Most of the complications occur in the eruptive or post eruptive stages of measles.

Bronchopneumonia is caused most commonly by gram-positive, secondary invaders, staphylococci and streptococci.

Encephalitis is the severest and most serious complication of measles. It was the cause of 2 fatalities in this series and is characterized by residual stigmata in a significant number of children in whom it occurs.

Other less common complications include tonsillitis, stomatitis, and vomiting and severe dehydration.

BIBLIOGRAPHY

1. ROSENAU, M. J.: *Preventive Medicine and Hygiene*, 6th ed. New York: Appleton, 1935, p. 77.
2. KOHN, J. L., AND KOIRANSKY, H.: Successive roentgenograms of chests of children during measles. *Am. J. Dis. Child.*, 1929, **38**, 258; further roentgenographic studies of chests of children during measles. *Ibid.*, 1933, **46**, 40.
3. WEINSTEIN, L., AND FRANKLIN, W.: Pneumonia of measles. *Am. J. M. Sc.*, 1949, **217**, 314.
4. APPLEBAUM, E., DOLGOPOL, V. B., AND DOLGIN, J.: Measles encephalitis. *Am. J. Dis. Child.*, 1949, **77**, 25.

A SIMPLE METHOD FOR THE MANAGEMENT OF SCALP WOUNDS*

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FOR the past 8 years, because of a large experience with scalp wounds, I have developed a form of treatment which has proven of value. This plan encompasses the following features: (1) simplicity, (2) avoidance of special technical training and equipment, and (3) minimum of discomfort and apprehension to the patient. Approximately 365 wounds have resulted in primary healing without serious infection.

ANATOMY

The first and third layers of the scalp, namely the skin and epicranium muscle, are firmly united by fibrous processes which pass from the skin through the second or subcutaneous fatty layer to the epicranium. This intimate association of layers usually produces a "clean type" of wound in scalp lacerations. This is distinctly different from wounds seen in the abdomen or the extremities, wherein there is retraction of the muscle from the fascia, the fascia from the fatty layer, and the fatty layer from the skin.

The blood vessel arrangement of the scalp is likewise strikingly different from that of any other part of the body. The vessels are supported in a loose cellular layer which lies between the scalp proper and the pericranium. Further, the vessels lie immediately within the tough inelastic layer of subcutaneous tissue. The latter is made up of strong, short, fibrous septa which contain small granular fat lobules. This anatomic relationship of blood vessels explains their unyielding character when an incision or laceration occurs in the scalp. Two main stem arteries

which anastomose freely over the median plane are responsible for the blood supply of the entire area. They are respectively the internal carotid for the frontal area and the external carotid for the remainder of the scalp. Since the blood supply of the skin is continuous with the underlying tissues, injuries of the superficial tissues in the scalp may survive even though a considerable portion of the scalp is detached from the cranium. Hemorrhages superficial to the epicranium muscle are usually limited to this area because of the density in the subcutaneous layer, whereas hemorrhages beneath the epicranium muscle are rarely extensive because of the presence of small vessels. Further, extravasations of blood beneath the pericranium lead to hematomas that are limited entirely by the skull sutures.

MATERIAL STUDIED

Wounds seen in this study were caused by the following materials: glass, slate, rough and smooth stones or bricks, sharp objects, and blunt weapons, such as blackjacks, sandbags, moving crane buckets, steel beams, falling timber, etc. These wounds in the vast majority of instances were of the "clean type." It has been my observation that the greater number of scalp wounds, except for the most trivial, are associated with division of the aponeurosis and separation of the epicranium. Extensive bleeding which appears with the immediate injury is usually self-limited, and profound hemorrhage from scalp wounds is rare.

The period of study for this series extends from 1941 to 1948, and includes 365 scalp lacerations treated in my office. The wounds are classified into the following types: (1) superficial, or those

* Read before the Section on General Practice of the Medical Society of the District of Columbia, January 22, 1949.

which include the skin and fatty layers, (2) deep, in which all 3 layers are involved, and (3) complete, in which actual avulsion of the scalp occurs. Breakdown of the wounds in this respect reveals that 334 were superficial, 23 were deep, and 8 were complete; the length of wounds varied between 2.5 and 15 centimeters; 289 occurred in males and 76 in females; 212 were children and 153 were adults.

TREATMENT

The method of treatment includes the following plan: The wound and scalp are thoroughly washed with either sterile normal saline or zephiran solution, since repeated washings are necessary for the removal of all loose débris and blood. No attempt is made to shave the scalp or remove the hair adjacent to the linear edges of the wound. After adequate washings, the wound is carefully evaluated. If the aponeurosis is split or torn, an X-ray film of the skull is made. It is a good procedure to make X-ray films of all scalp wounds. All devitalized tissue is débrided. Local anesthesia is not instituted.

If the wound is of the "superficial" type, no deep sutures are applied, but the wound is dusted with sterile sulfathiazole crystals and the skin edges are approximated with Michel clips $\frac{3}{8}$ of an inch apart. The advantage of clips over sutures is the simplicity of application and the prevention of inversion of the skin edges. This accomplishes a side-to-side approximation of the superficial parts of the skin.

If a deep wound is present, a minimal number of 00 chromic sutures are placed in the fascia and muscles. Again, sulfathiazole crystals are applied and the skin edges approximated in the usual manner with Michel clips. Drains are used in scalp wounds. The skin clips are applied $\frac{3}{8}$ of an inch apart.

In the event of the complete type or avulsion of the scalp, following the washing and débriding the muscles and fascia are closed with 00 chromic catgut, the wound dusted with sulfathiazole crystals, and the clips applied to the skin. Penicillin is not employed locally or as part of the definitive aftercare of scalp wounds. In this entire series severe wound sepsis has not been seen. Another innovation in treatment which is probably different from the usual recognized methods is that dressings are not applied. The hair is simply pulled over the clipped area. A routine practice in the definitive care of these patients is the use of tetanus antitoxin alone, or tetanus antitoxin and gas bacillus vaccine. The vaccine used depends on the circumstances surrounding the injury. After this care the patient is instructed to return to the office within 24 hours. With the superficial type of wound, a firm blood crust is usually seen at this time. The patient is carefully instructed not to comb his hair. After 48 hours the wound is observed again. If primary healing has taken place, the skin clips are removed and the patient is warned to avoid trauma for another 5 to 7 days. A final examination is then made. In extensive wounds the scalp clips are left in place for 72 hours. If a hematoma develops, the wound is aspirated under sterile precautions with an 18-gauge needle.

SUMMARY

A simple method for the management of scalp wounds that is applicable to the office or by a general practitioner is presented. The plan requires no special skills, training, or instruments. In an 8-year period, 334 superficial, 23 deep, and 8 complete scalp wounds have been treated successfully by the technic described in this report.

HISTOPLASMOSIS OF THE LARYNX*

Report of a Case

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CASES of histoplasmosis, although rare, have been reported in increasing numbers, and as the disease is more frequently recognized it has become important in differential diagnosis in oral, pharyngeal and laryngeal diseases.

Histoplasmosis was first described by Darling¹ in 1906; believing the disease to be caused by a protozoan, he named the latter *Histoplasma capsulatum*. In 1912 da Rocha-Lima² correctly suggested that the organism was a yeast-like growth, fungous in character; but it was not until 1934 that this theory was confirmed by DeMonbreun³ who cultivated the fungus from the blood and spleen of a 5-month-old infant.

The fungus, which in human tissues has a yeast-like form, develops chlamydospores on artificial media; and these chlamydospores, upon injection into experimental animals, can produce the disease. Characteristic of histoplasmosis is its invasion of the reticulo-endothelial system; thus, the fungus may be found in the liver, spleen, lymph nodes, lungs, adrenals, and, in fact, in almost every organ.

Histoplasmosis appears in forms which differ in degree of severity. There is the generalized fatal form, which is seen most frequently in rather extreme age groups, childhood and past 40. Then, there is the asymptomatic form, in which the diagnosis is made by the skin test and confirmed by the presence of pulmonary calcification with a negative tuberculin test. This asymptomatic form is endemic in the Eastern Central

states and in several states just west of the Mississippi.

In cases of the generalized fatal form there is usually a febrile process with progressive weakening ending in death within 2 years. Some symptomatic findings are hepatomegaly, enlarged lymph nodes, splenomegaly, lesions of the lungs, and ulcerative lesions of any portion of the skin and mucous membranes.

The clinical picture may be confused with that of tuberculosis, of aleukemic leukemia (because of the leukopenia), of carcinoma, or of one of the lymphoblastomas. The diagnosis is usually made by a biopsy of an accessible lesion. The skin test is of value but may give positive reactions to immunologically related organisms such as blastomycosis. However, a negative test can almost certainly verify absence of this disease. Presence of calcification of the lungs, with a negative tuberculin test, is highly suggestive of histoplasmosis, particularly when a skin test is positive.

Histoplasmosis is especially misleading in the otolaryngological field. Laryngeal lesions caused by its presence are extremely suggestive of tuberculosis of the larynx; the mucous membrane of the larynx is usually pale, and the involvement of the larynx is diffuse. The lesions may be productive of granulomatous tissue. The larynx may appear intensely inflamed and may show ulceration with marked destruction of tissue. Altogether the symptoms are those of either laryngeal tuberculosis or of cancer, with hoarseness and dysphagia.

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In the case which is herein presented, odynphagia was present, particularly to liquids, which is also suggestive of tuberculosis. The diagnosis of histoplasmosis was further suggested by the concurrence of oral lesions, which may involve the tongue, soft palate and the uvula. These lesions are usually papular, not tender to touch, and vary in size from 2 to 10 mm. in diameter. Biopsy reveals characteristic encapsulated *Histoplasma capsulatum*, the essential diagnostic feature. Should a section of the tissue not contain the organism, the pseudotuberculous granulomatous tissue can be confused with tuberculosis tissue, since giant cells are present in both. A careful search must be made for the fungus in all cases which seem to point to a diagnosis of histoplasmosis. At times identification of the organism can be made from an examination of the peripheral blood and sternal marrow aspiration. Recently a complement fixation test has been developed which appears to be specific.

At present the treatment of the disease is unsuccessful. Antimony and sulfadiazine compounds have had some slight effect in a few cases. When the lesion is localized, total extirpation or radium therapy may prevent dissemination. In the case which is reported, both streptomycin and aureomycin were used with no measurable improvement.

REPORT OF CASE

A man aged 65 years was admitted to the hospital for study with the complaint of progressive dysphagia and hoarseness of 6 weeks' duration. The patient stated that he was in normal health before the onset of the present illness. A very early symptom was difficulty in swallowing, at first of solid foods, later increasing to the point where swallowing even liquids was difficult. Associated with this symptom was a progressive hoarseness which had advanced to the stage where the patient's voice was a whisper. Odynphagia was present to a marked degree, and liquids had to be sipped in small amounts. The patient had lost 35 pounds over the 6 months' period, due for the most part to anorexia. A severe, moderately productive cough was present. The patient stated that he had noticed several "swellings" in his mouth for about 3 months. There were no symptoms referable to other systems.

On examination, the essential findings were limited to the oral cavity and hypopharynx. In the mouth there were seen several papular lesions distributed over the tongue and buccal surfaces and the uvula. These lesions were elevated, slightly purple, and non-tender, varying in size from 3 to 10 mm. in diameter. The lesion resembled a papilloma.

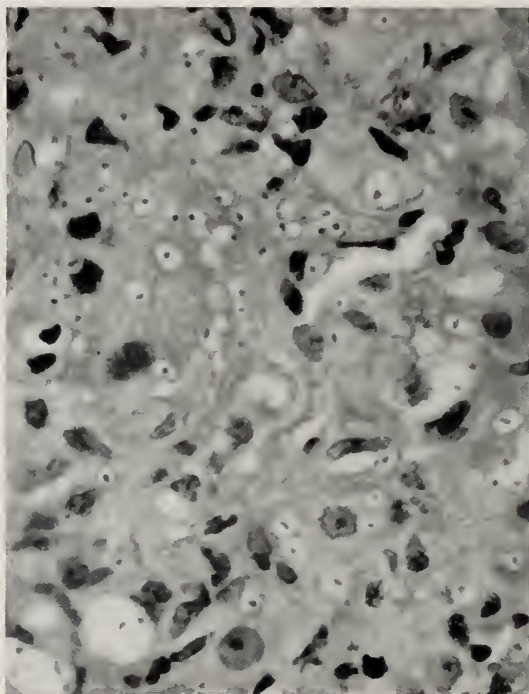


FIG. 1. Tissue from larynx. This section shows the large, mononuclear, pale macrophages with varying numbers of inclusion bodies. These cytoplasmic inclusions are spherical, have small, regular, round, centrally placed nuclei, a clear zone around the nucleus, and a capsule. They represent *Histoplasma plasmodium*.

Laryngeal examination revealed very pale mucous membrane throughout. There was infiltration of both the arytenoid and aryepiglottic folds, with marked ulceration of the right arytenoid in particular. The right half of the epiglottis appeared thickened, very red and edematous. The cords were moderately thickened and did not approximate tightly. The general impression at the time of this cursory examination was tuberculosis of the larynx, although a roentgenogram of the chest had been reported negative. However, with the biopsy findings, confirming the presence of the *Histoplasma capsulatum* in the tissue (figure 1), the clinical findings necessarily resolved themselves to a diagnosis of histoplasmosis. The granulomatous process was present in the entire section

of the tissue. A biopsy of one of the oral lesions showed the same histologic features.

Several plans of treatment were tried, but the anorexia became worse and azotemia gradually increased. The patient was treated with sulfadiazine, penicillin, then streptomycin, and finally aureomycin. None was effective. The blood nonprotein nitrogen, which was 60 mg. per cent at time of admission, was 140 mg. per cent at exitus. The liver had increased to reach 4 fingerbreadths below the costal margin. The patient finally went into coma and expired in uremia, 8 weeks after admission.

COMMENT

In this case the laboratory findings of importance were a negative X-ray film of the chest (except for increased hilar nodes), a blood nonprotein nitrogen rising from 60 to 140 mg. per cent, negative bone marrow puncture, positive histoplasmin skin test, and a positive complement fixation test. The Wassermann test was negative. Permission for an autopsy was not granted.

The case illustrates the rapidly fulminating type of histoplasmosis with generalized involvement of all organs, particularly the liver and kidneys. The laryngeal manifestations are of interest to the laryngologist because of the pseudo-resemblance to tuberculosis of the larynx, infil-

tration, ulceration and marked inflammatory changes with pallor of the uninvolved mucous membrane. The odynphagia was apparently the presenting symptom in this case.

There is no specific treatment for histoplasmosis as yet. Many patients seem to recover spontaneously, usually having the asymptomatic form of the disease. Local procedures, such as excision, are of doubtful value, since the disease is characterized by involvement of other organs (in the presence of symptomatic manifestations).

SUMMARY

A case of histoplasmosis of the larynx becoming generalized is presented with a discussion of the symptoms, clinical findings, and progress of the disease.

BIBLIOGRAPHY

1. DARLING, S. T.: Histoplasmosis: fatal infectious disease resembling kala-azar found among natives of tropical America. *Arch. Int. Med.*, 1908, **2**, 107.
2. DAROCHA-LIMA, H.: Beitrag zur Kenntnis der Blastomykosen Lymphangitis epizootica und Histoplasmosis. *Centralbl. f. Bakt.*, 1912, **67**, 233.
3. DEMONBREUN, W. A.: Cultivation and cultural characteristics of Darling's *Histoplasma capsulatum*. *Am. J. Trop. Med.*, 1934, **14**, 93.

President's Page

EXPERTS AT WORK

Doctors in Washington are apt to take for granted a great many of their unusual opportunities. Mostly they are too busy to visit the many institutions where scientific studies are going on, but all around them bits of research are being carried out that serve to advance the sum total of knowledge. There is hardly any place in the world with so many experts. Some years ago I had occasion to make absolute alcohol from the 95 per cent variety that was all that could be obtained on the budget for the laboratory. The Bureau of Chemistry of the Department of Agriculture had the answer. Merely put some pieces of calcium carbide in the alcohol and pipe the acetylene out the window. Then it was the problem of the five-carbon sugars. A scientist at the Bureau of Standards had synthesized twenty-two out of the possible twenty-four varieties. Then it was the question of the cranial capacity of ancient man. The National Museum has the largest collection of Inca skulls in existence. And finally, to prove the point, when I was Director of Laboratories at St. Elizabeths Hospital, a Navy doctor brought me a slide from a brain of a patient who had died in California. A glance at it with the naked eye was enough to make me reasonably certain that it was a case of torulosis. At that time I was the world expert on that disorder.

Thus it is that here and there, around the city, sometimes tucked away in obscure Government bureaus, sometimes attached to universities or to independent organizations, scientists are quietly at work. During the past few years there has been an impetus toward research, and with the friendly rivalry of the lately enlarged Army Medical Center and the greatly enlarged National Naval Medical Center, and the National Institutes of Health promising to outstrip them both, there is promise of great things to come. Collating some of the enormous amount of material going on in the laboratories throughout the country stands the National Research Council. Here is an organization of quasi-Governmental status, dating back to the time of the Civil War. The American Red Cross and the neighboring Pan American Union have their fingers on the pulse of international scientific activities. The Armed Forces Institute of Pathology and the Army Medical Library are the greatest repositories of material and publications that exist in the world, and the Veterans Administration, with records of some twenty million veterans, may well be in a class by itself.

Medical and scientific history has been made in Washington, and some of the brightest stars in the scientific firmament have worked here. William Beaumont is generally thought of as a frontier army surgeon who later practised medicine in St. Louis. But in 1832-33 he was assigned to the office of the Surgeon General and brought with him Alexis St. Martin as his orderly. Some of the experiments on "that old fistulous Alexis" were carried out in this city, and the only degree Beaumont apparently ever received was from what later became George Washington University Medical School. Maybe a hundred years from now some of the work that is at present being carried on in this city will stand out with startling clarity. Experts are at work.

Walter Freeman

Editorials

"MERRY CHRISTMASES AND HAPPY NEW YEARS"

My best of wishes for your merry Christmases and your happy New Years, your long lives and your true prosperities. Worth twenty pound good if they are delivered as I send them. Remember! Here's a final prescription added, "To be taken for life."

—Charles Dickens from "*Doctor Marigold*"

THE PHYSICIAN AND HIS NATION'S DEFENSE*

In this country, where our fervent desire for peace is second only to our insistence upon liberty, planning for defense is not a very popular national interest. Yet, today we find ourselves of necessity struggling for peace on two quite divergent fronts—the urgent striving to resolve international differences and avoid war, on the one hand, and the equally urgent effort to develop adequate defense plans for any war which may be forced upon us. If we may accept the daily newspaper stories, as well as some highly respected military opinion, any future conflict in which we become involved will be brought to us, here on this continent, rather than being confined to some distant land. There is little reason to believe that we will ever again have a long period of time to marshal our full fighting strength and to arrange for the defense of our cities and villages.

These sober considerations make the subject of defense measures a very personal matter for every American. However, because historically we have pursued peace with much greater enthusiasm than we have shown for security preparations, it is doubtful if any large number of Americans today have given the subject much detailed thought. This can be the basis for

tragedy, for no matter how much planning may be done by agencies or departments in Washington, defense of the Nation is essentially a community project and responsibility. This is not to say that we may function well without adequate national planning; rather, it means that no national plan, however well conceived, will be worth the paper it is written on until the communities, and the individuals in them, fully understand the import of another war and are actively interested in the necessary preparations.

In some quarters, there seems to be a vague notion that all defense measures, including civil defense plans, are being taken care of by the military. This, of course, is not true, and should not be allowed to dull our sense of individual responsibility. The armed forces are not responsible for the total program of civil defense. In addition to certain phases such as air-raid protection and temporary assistance, the military authorities are responsible for coordinating military defense plans with civil leaders, for lack of coordination in this matter could result in widespread chaos in time of national emergency.

The problems of medical preparedness offer an excellent example of the need for close cooperation in developing military and civilian plans. There are just so many physicians and allied pro-

*This is the thirty-third in a series of guest editorials by well known physicians and laymen.

fessional people in this country. If the Nation is to achieve a balanced program of medical services in an emergency, our plans must be so geared that military, civilian and industrial requirements are recognized and provided for, on a basis of share and share alike. The same principle applies in considering emergency medical equipment, whole blood and plasma, hospital beds, vaccines and a host of other essentials in a comprehensive medical plan.

Two personal experiences during the last war are worth recalling. In 1944, I was ordered to the European Theatre of Operations to direct a study of bombing effects on civilian morale, medicine and health. The medical plans of Great Britain, developed well before the outbreak of war in 1939, were so well conceived and executed that the British Ministry of Health, operating as it was from the highest government level, was able to largely equalize the demands for medical care arising from the civilian defense authorities, the three branches of the armed forces, and the civilian population. It was inspiring to see a country which, from a medical and morale standpoint, was able to resist the German bombardment, running factories and commerce from bombed-out plants and offices, where health problems alone could have weakened if not depleted the nation's power to resist.

At the other extreme was my experience in Germany where in May, 1945 I was the first allied medical officer to interrogate the late Dr.

Karl Brandt, Reichs-Commissar for Medicine and Health in Germany from 1942 to 1945. Questioned about the collapse of German civil and military medical care in 1944-45, Dr. Brandt informed me that prior to August, 1942 it could easily be said that no national medical plan existed in Germany. Many political and military leaders in Germany believed that their country could not be attacked by airplanes. The disastrous Russian campaign of 1941-42, which literally destroyed the German armed forces medical resources, was followed by heavy air raids by the British, then by combined British and U. S. Eighth Air Force air fleets. The Germans were never able to reconstruct either a national medical plan or their national medical resources.

Certainly this nation should be able to profit from the medical successes of the British and the dismal collapse of the German concept. The first step in that direction is the realization that defense preparations are a great deal more than plans on pieces of paper, or atom-bomb shelters, or strategic stockpiles or radar systems. Fundamentally, civil defense is the mobilization of the will to resist. Labeling it loosely as "morale" is to becloud its true nature, for sound civil defense in time of emergency springs from an informed populace, fortified with the concept of community self-help.

RICHARD L. MEILING, M.D.

*Director of Medical Services,
Office of the Secretary of Defense*

THE ALL-OUT CAMPAIGN AGAINST VENEREAL DISEASE

An editorial by Dr. S. Ross Taggart, Director of the Bureau of Venereal Diseases of the D. C. Health Department, in the October edition of the ANNALS, calls attention to the current campaign against venereal disease, sponsored by the Health Department.

Your Society's Subcommittee on Venereal Disease urges you to give wholehearted support to the campaign; urges you as individual physicians to make every effort to uncover in your routine

and special examinations of patients any VD that may be present. The medical profession has never been in such a favorable position to get in a "knock-out" blow against syphilis and gonorrhea as it is today.

Present repository types of penicillin are by far the most versatile therapeutic agent ever made available for use against these two diseases. As it has been so aptly put by one venereologist, "a sniff of penicillin and the gonococcus drops

dead." The current dosages of 300,000 units of procaine penicillin are sufficient to cure almost all cases of gonorrhea.

In light of some very interesting results in determining the minimal effective dosage in the cure of primary and secondary syphilis, present schedules of administering the repository forms of penicillin (300,000 to 600,000 units daily for 10 to 15 days) should be very effective. The current widespread administration of penicillin for other diseases must at the same time weigh the scales heavily on the side of eradication of syphilis. We, as individual physicians, can apply this agent much more selectively to the thousands of patients seen in our collective offices, if, on routine examination of patients VD is discovered and we place such patients promptly under treatment.

You are strongly urged to enter actively into the campaign, not only with your individual patients but also through the organizations of which many of you are members.

Materials are available for distribution to individuals and to groups upon request. If you desire to show a film or play a recording to groups, film projectors and record players can be obtained from the Health Department's Bureau of Venereal Diseases. If you desire to make a talk concerning the campaign to stimulate public action, a type paper on which you may build your talk is available. Let's make this an all-out effort on the part of all doctors to eradicate syphilis and gonorrhea from Washington.

MONROE J. ROMANSKY, M.D.
*Chairman, Subcommittee on
Venereal Disease*

CAN HOSPITAL COSTS BE CURBED?

The mounting costs of hospitalization are accepted as a matter of course and no concerted or well planned effort has been made to curtail them by attending physicians. We have become rather complacent about the expense involved in an illness, perhaps because most of us have not been confronted with the bills.

To be sure, as attending doctors, we can do little or nothing about some aspects of hospital expense, such as wages, the hours of labor, the price of supplies, the cost of fuel, the interest rates on loans, and many other items which enter, unseen, into the patient's bill, but the time is at hand when we can and should do something tangible in the matter of costs when it applies to medications, X-ray and laboratory examinations, nursing service, and the length of stay in an institution.

With no intention of being critical, it is a well known fact that many drugs, and expensive ones, are administered long after indication for their use exists, due perhaps to an oversight, and other times to indifference. The nurses' notes, if care-

fully read, often reveal the multiplicity of drugs employed. The vitamins have been used extravagantly with questionable benefit in too many cases. The newer antibiotics have been used as a cure-all for all infections without due regard for the adequate dosage or the period over which they are given. Intravenous fluids and blood are indispensable at times, but, when a transfusion of blood is given to a patient with a normal blood count, who is able to walk about the corridors of a hospital, one may wonder if the approximate cost and relative risk of reactions are taken into account.

Many laboratory and X-ray examinations that are made and repeated could be eliminated by a careful history of the patient and good physical examination. There seems to be a trend toward demanding laboratory tests of many descriptions before any attempt is made to make a diagnosis.

The period of hospitalization depends on the illness, complications, and the conditions of the home to which the patient must return, but there is little doubt that too many patients remain

longer than necessary, particularly those having prepaid hospitalization. Lengthening the period of hospitalization increases the expense to the organization furnishing it and is reflected eventually in the charge to the subscriber, as rates advance. Special nurses are demanded in critical cases, but after the emergency no longer exists they are retained, at the request of the patient or the doctor, when their services are no longer required. With the present shortage two purposes are served by releasing them, namely, reducing expense to the patient, and making them available to others. The special nurse is a necessity or a luxury, and the differentiation should be promptly made.

If the physician would occasionally examine

the patient's hospital bill he would be greatly enlightened and find many items in which a saving could be made. Not for a moment should the welfare of the patient be secondary to the costs, but there is a happy middle ground, and the medical advisor is well within his province to protect the patient from unnecessary expense. We owe it to the patient, to the hospital, and to the hospital plan of which the patient may be a subscriber to lend our support to any method of economy without sacrificing care. It is by such coöperation that it will be possible to promote the success of the voluntary plan of medical care and hospitalization, rather than be forced to accept a compulsory type.

C. S. W.

In and Out of Focus

BY THE OBSERVER

Medical Costs
versus
Incomes

At its Annual Business Meeting last May the Medical Society approved a recommendation of its Committee on Medical Care that a study be undertaken in the District of Columbia to determine the costs of hospitalized illness as compared with incomes. Much had been said on this subject but the Committee found there were few facts to support the views expressed. Obviously no definite conclusions could be drawn until one knew just how great the burden of sickness costs was for those who were called upon to make heaviest expenditures, namely, those who entered the hospitals.

The study now in progress is, therefore, a "first." No investigation of a similar nature, so far as the Committee knows, has been undertaken on a local or national scale. Under these circumstances the findings will undoubtedly attract wide attention.

The Medico-Chirurgical Society of the District of Columbia, Inc. is coöperating in the study. Assistance is also being given by Washington hospitals where patients are being interviewed with permission of their physicians. Responsibility for the technical aspects of the project has been assumed by the Public Health Service, which has assigned several statisticians to the project.

There was considerable delay in getting the survey under way because the summer months were not considered typical. It was the latter part of October before the wheels began to turn. The first step was to obtain the approval of hospitals, which would be required to furnish a daily list of patients who entered their institutions. Upon receipt of these lists, communications were directed to the Medical Society's members requesting them to authorize interviews with patients. Statisticians from the Pub-

lic Health Service were highly elated over the response of both hospitals and physicians. Interviews with patients have proved highly satisfactory.

At the time this is written, patients have been interviewed at Sibley Memorial, Garfield Memorial, Columbia, Emergency, and Episcopal Eye, Ear and Throat hospitals. Public Health Service investigators will move on to other institutions as soon as possible.

In a statement released to the press late in November, Dr. Karl C. Corley, Chairman of the Committee on Medical Care, said: "Splendid coöperation has been given us by physicians, hospitals, patients and the Public Health Service. This has been most gratifying to me. We feel confident that the results of the survey will not only be enlightening but valuable as a guide to the medical profession and other groups in dealing with economic problems relating to medicine in the District of Columbia."



Doctors and Civil Defense

No one was more surprised than your Observer when a copy of the *Washington Daily News* for October 24 came to his desk.

Black headlines screamed "Blue Monday . . . Local Doctors Planning Atom Disaster Corps Without Coöperation From Top Officialdom." The lead paragraph in this "sensational" news report read:

"Despite consistent indifference and lack of coöperation on the part of Defense and District officials, the D. C. Medical Society today is determinedly working toward organizing itself to cope with the medical emergency that an atomic attack could bring to this city."

Your Observer was aware that the *News* contemplated doing an article on civil defense. In fact, he had learned the day before the above report was published that the *News* was much interested in a paper, entitled "Atomic Bombs Over Washington," given by Dr. Luther H. Snyder before the Kober Society on March 21,

1949, and published in the October, 1949 issue of the *MEDICAL ANNALS*.

At the time the *Daily News* representative called the Society's Executive Offices and stated his intentions of using Dr. Snyder's paper, he inquired what the District Medical Society had done. The facts given were these: About two years ago the Chairman of the Society's Committee on Emergency Medical Care and the Secretary called upon District Commissioner John Russell Young and offered to aid with the development of a civil defense program. Mr. Young thanked them, stating that when its assistance was needed he would certainly call upon the Medical Society. A year later, nothing having been heard from Mr. Young, a letter was dispatched to him stating that in view of the world situation the Committee on Emergency Medical Care wished to renew its offer. Commissioner Young replied that pending Government action it would be premature for the Commissioners to attempt the organization of civil defense for Washington. Informed of Commissioner Young's reply, the Committee voted to proceed with the development of a program, which it is now in the process of doing.

Editorial comment by the *News* was favorable and so was that of the *Washington Evening Star* for October 26. The *Star* editorialized as follows:

"Unpleasant as it is to think about the horrors of germ and atomic warfare, it is reassuring to learn that the medical profession is taking steps to prepare itself to respond if some grim emergency of the future should require medical mobilization. The District Medical Society, like many similar organizations, is giving serious thought to how it could be of service to the community in such a crisis.

"As yet there is no approved national program to guide local medical groups in their preparations. The District Medical Society appointed a special committee after the War to study the role of civilian doctors in an atomic or other future disaster, but it has received little encouragement from Federal and District Government authorities. This is because Government officials as yet have adopted no national civil defense plan. The program recommended a year ago by an advisory group headed by

Russell J. Hopley is still a very tentative one. That group, appointed by the late Secretary Forrestal, outlined a plan which placed responsibility for civil defense on local authorities, who were to look to the Federal Government for advice and guidance. The report made special mention of the need for planning by medical organizations to meet problems of blast wounds, radiation and biological warfare hazards.

"The District Medical Society is moving with proper calmness to assume its part of the civil defense obligations. The Hopley report warned against hysteria-creating measures designed to prepare for a possible emergency. The Society is conducting a survey to find what other medical organizations are doing to prepare themselves for what might happen on some A (for atom) Day. It hopes to keep its members as fully informed as possible on latest developments in radiation and germ warfare research. In this way the Society will be in a position to respond when called upon by proper Governmental authorities to advise or assist in civil defense planning.

"Meanwhile, there is an increasing demand by state and other local agencies for definite information from Washington as to what they are expected to do in the field of civil defense. This whole question is scheduled to be studied by the Joint Atomic Energy Committee at the next session of Congress. It is a matter that requires early consideration in an atmosphere devoid of emotion and dramatics."

As the *Star* states, the Committee is now seeking all available material on emergency medical plans so that the medical profession will be prepared to do its part in the event of a disaster, whether it be of a wartime or peacetime nature. It will shortly ask the assistance of other organizations in the District and nearby Maryland and Virginia. In the not too distant future it should be in a position to submit a blueprint to the Medical Society for its approval.

★

*How the
Post
Sees It*

Some weeks ago Senator Hubert H. Humphrey of Minnesota, ardent supporter of President Truman's Fair Deal program, was quoted as reaffirming his belief in the social security principle of the Administration's national health insurance scheme, but because of practical administrative difficulties,

he thought "legislative action might well be a disservice to the principle in which we believe." The Senator was also said to have intimated that final Congressional action on health insurance legislation was not expected in 1950.

Humphrey was not alone among the President's advisers in taking this view. Senators Elbert D. Thomas of Utah and James E. Murray of Montana had previously stated they did not look for passage of the compulsory health insurance measure in the next session of Congress.

As might have been expected, Senator Humphrey's statement set off rumors that he had withdrawn his support of Mr. Truman's health insurance program. This was denied. Shortly thereafter the *Washington Post* (November 16) aired its views on the subject in a front-page story:

"What looked like a rift in the Administration's compulsory health insurance camp resolved itself yesterday into relatively minor differences over legislative strategy. Most legislative sponsors of the controversial health plank privately agree that it may have to go over to the Eighty-second Congress. But Senator Hubert Humphrey (D., Minn.), one of the authors, stirred up a tempest when he said on the record that the compulsory insurance point 'is not yet in the legislative action stage.'

"The Humphrey statement was hailed by health plan opponents as a major defection in the Administration's health insurance ranks. At the same time the labor press accused Humphrey of defaulting on a pledge.

"It was clear yesterday, however, that Humphrey's 'boner,' if in fact it was one, lay in stating publicly what the strategy of legislative handlers of the bill has been right along. In other words, the controversial 'Title 7,' embracing compulsory health insurance, would be used in the second session of the 81st Congress, much as it was in the last session, as a club to drive other Truman health points to passage and then be taken to the voters for a clear-cut test in the 1950 campaign.

"The plain fact is, one generally well-informed source said yesterday, that the present Congress hasn't got enough pledged votes to deliver a compulsory health insurance program. The hope of leading advocates, including Humphrey, is that the next Congress will have the votes to pass the bill in 1951 or 1952, after a clear 'mandate' from the voters is asked and given. That doesn't mean that President Truman or Federal Security

Administrator Oscar Ewing has consented to any 'strategy of delay' or will ever formally agree to it. Officially the position of most legislative sponsors is also one of 'no retreat.'

"As a practical matter, however, Humphrey probably let the legislative cat out of the bag. President Truman is expected to plug as hard as ever for the controversial health plank in his next State-of-the-Union message and make it a top 1950 election issue if Congress fails to put it through. Republican National Chairman Guy George Gabrielson already has indicated a willingness to accept what the GOP and the American Medical Association call 'socialized medicine' as one of the main issues in the Congressional campaign. But there remained little doubt that the battleground next year will be the hustings, and not the House or Senate floor.

"A statement by Senator Paul Douglas (D., Ill.) opposing action on a compulsory health insurance program next year touched off reports of a 'rift.' Senator Humphrey in a telephone interview with the *Minneapolis Tribune* agreed with Douglas and the tempest was on.

"To discount talk of a major Administration split, Humphrey was obliged to issue a second statement 'clarifying' his position, friends said. In the second statement, Humphrey said he always has favored and still favors the 'principle' of social security insurance, but recognizes 'the practical difficulties of a Nation-wide program of health insurance.

" 'Since problems of administration are often formidable barriers to effectively carry out valid objectives, I believe it is vital that those of us who recognize the need of comprehensive health insurance coverage prepare ourselves to solve the administrative problems of any such legislation,' Humphrey went on to say. 'It is my considered judgment, therefore, that legislation for health insurance is not yet in the legislative action stage and will not be in that stage, regardless of its merits, until there have been further hearings, further research, and until a primary basic administration formula has been developed.'

"A Senate Labor subcommittee staff study of major health insurance bills, ranging from the Administration bill to the 'compromise' Flanders-Ives and Hill bills has already been ordered. The more limited Taft plan, affecting only low-income groups, will also figure in the study.

"Senator James E. Murray (D., Mont.), subcommittee chairman, has called for subcommittee action when the study is completed March 15. It would surprise no one, however, if the subcommittee voted for further study.

"If the Administration insists on action next year, the Labor committee in a showdown probably could command enough votes to report out a bill. In that event it

is believed even Senator Humphrey will vote to report it. But as in the case of attempted Taft-Hartley repeal, the Administration does not now command the same majorities in the full House and Senate.

"The counter strategy, favored by Humphrey publicly and by some other sponsors privately, is to first push through Congress the six preliminary points in the Truman health bill and let the more controversial seventh point go over to next session.

"Title 3, providing for expansion of hospital facilities, was enacted last session and the Senate passed the major portion of three other titles.

"If the Humphrey strategy is followed, Congress would concentrate next session on final enactment of these and two other as yet undelivered titles, providing for special health assistance to rural areas and assistance to states for maternal, child health and crippled children services. But there would be no showdown on crucial 'Title 7' until Mr. Truman gets a direct 'mandate' from the voters."



Dues Increase Voted

In an effort to avoid an increase in dues, the Medical Society's Executive Board delayed taking action for more than a year. Late last summer it became evident that it had no alternative. Costs of operation were mounting and there was no prospect of additional income.

Inquiry was thereupon made to learn how other medical societies were faring financially. The Board discovered that medical societies with a comparable program were paying much higher dues than members of our Society. It might be explained here that while the District Medical Society is in many respects similar to a large county medical organization, it functions as and is, in fact, a state medical organization. Comparison must, therefore, be made with other state medical organizations. Here, then, are some of the more active state societies and the annual dues paid by their members: California \$50.00; Colorado \$50.00; Wisconsin \$50.00; North Carolina \$40.00 (plus \$5.00 assessment); Oklahoma \$42.00; and West Virginia \$15.00 (plus a voluntary assessment of \$25.00).

Having concluded that it must act, the Board submitted an amendment to the Constitution

and By-laws, at a special business meeting of the Society on October 12, which would increase the dues of Active members from \$30.00 to \$40.00 a year. Immediately thereafter a statement was mailed to each member setting forth briefly the reasons why an increase in dues was necessary. Among other things, attention was called to the net loss in 1948 and that a larger deficit was in prospect for 1949. It was pointed out that substantially higher prices for everything purchased, expansion of the Society's program, growing need for repairs, replacements and new equipment, higher costs of the upkeep of the Society's properties, and increase in personnel and salaries paid employees made higher dues imperative if the present program was to be continued.

At a special business meeting held on November 9, the amendment was again presented to the Society with the Board's recommendation that it be adopted. Fortunately there was better than average attendance at this meeting and there was discussion both pro and con. When the vote was taken a majority favored the increase. Thus the dues for the coming year will be \$40.00 for Active members "except that recent graduates who have been in the active private practice of medicine less than three years shall pay for their first year ten dollars, for their second year twenty dollars, and thereafter forty dollars." Active members who must pay increased dues can pay them in two installments, the first installment on January 1 and the second on June 1.

It should be unnecessary to remind members that they are entitled to know just how the Medical Society's funds are expended. The suggestion has been made on many occasions that members visit the Executive Offices for the purpose of familiarizing themselves with the Society's finances. They can be assured that all available information will be given them.

Expenditures of Society funds are reviewed monthly by the Finance Committee, which is appointed annually by the Executive Board.

The Committee consists of the President-elect of the Society, who is Chairman, an elected member of the Executive Board, and the Secretary-Treasurer. This Committee reports monthly to the Executive Board which takes action on its recommendations.

What the increase in dues means to the Society is that it will pay its way and set aside something in reserve as soon as improvements and repairs to its properties have been made. What it means to individual members is assurance that its organization will be financially stable and in a position to continue and, wherever possible, improve its program.



The Doctor's Secretary

Doctors' secretaries vary considerably in ability, training and efficiency. This, it seems, is not always apparent to the physician-employer. Too frequently he trustingly turns over the management of his business affairs to a secretary who has few qualifications for such a responsibility. The result is what might be expected—confusion and difficulties.

On the other hand there are secretaries to whom the physician owes more than he can repay. Competent and completely trustworthy, they remain with him throughout his professional career, or at least a large part of it. Some of these faithful employees receive tangible evidence of gratitude. Others do not fare so well. This may be due to thoughtlessness or indifference. Whatever the reason, the result may be tragic.

Having been in the employ of one physician for a great number of years, the secretary who has passed middle age finds it extremely difficult to adjust herself to new surroundings. And thereby hangs many a sad tale of unemployment and despair. The least that should be done for such an employee is to provide retirement benefits sufficient to make her later years secure.

Philadelphia Medicine, in its November 12

issue, directs the attention of its readers to the value of an efficient secretary. The journal observes:

"In the saving of his time alone a capable medical secretary can contribute considerably to her employer. The methodical arrangement of office and hospital appointments and house calls will permit the physician to devote his energies most effectively to the many obligations on his time. Another contribution which the secretary can make is that of bringing to the doctor's attention matters requiring his immediate attention and relegating to the bottom of the pile the trivial things which can be disposed of at a later date. . . .

"In the field of public relations, the secretary can play a very significant part. The personal relationship between physician and patient can be aided materially by the friendly interest in the patient of the young lady in the 'outer office' who often spends more actual time with the patient than the physician himself. . . .

"The physician should not hesitate to give his secretary full responsibility for her share of the work of the professional office. He should turn over to her many details which she can handle more promptly and effectively than he can. His time should be given as completely as possible to the professional needs of his patients and not taken up with a lot of detail which his secretary can handle."

Your Observer has long since discovered that doctors' secretaries are pretty important people where the relations of physicians to their medical societies are concerned. Upon their good will and understanding may depend the active interest of their employers in their medical organizations. Recognizing this fact and its opportunity to present information which would contribute to their efficiency, our Society sponsored its first Conference of Physicians' Secretaries last spring. The response was so genuinely enthusiastic that future conferences are contemplated.



Behind the Record One of the things that has impressed your Observer in the course of his medical experience is that written records often conceal as much as they reveal. There is nothing novel about this observation, but it is a fact that is frequently ignored. Too often the truth emerges, if at all,

COMPENSATION FEE SCHEDULE

Several inquiries have been referred lately to the Committee on Industrial Medicine regarding the charge to be made by Compensation Clinics for the administration of penicillin. The Committee met on October 28 to consider this matter and concluded that according to the last sentence in Regulation 7 prefixed to the Schedule of Fees, adopted last March by the Medical Society of the District of Columbia, and Item No. 21, page 1 of the Schedule, the proper charge should be \$1.00 for the average daily dose of the drug, penicillin, and \$2.00 for the routine office service, or a total of \$3.00 for each daily dose of penicillin administered. But when penicillin is given in conjunction with or supplemental to other services, such as dressing or suturing a wound, for which a fee is charged, the total fee for this dose of penicillin and its administration shall be \$2.00 instead of \$3.00.

W. CABELL MOORE, M.D.
*Chairman, Committee on
Industrial Medicine*

only if those with firsthand knowledge have the courage or will to speak up.

The record of any organization contains statements and actions which create an erroneous impression. This may be intentional or the result of wishful thinking on the part of those responsible for them. The point which your Observer wishes to make is that in matters of importance one usually has to go behind the record for the facts. Admittedly, this presents difficulties. Unless those who are in a position to supply accurate information are willing to divulge what they know, inaccuracies will remain unchallenged. If personalities are involved, their reluctance to do so is understandable, especially if the issues in point are controversial. But an effort should be made to convince them of their obligation to state the facts as they know them.

Events of the past quarter of a century have had a profound effect on medicine. Not only

(Continued on page 672)



Our Living Past Presidents

HENRY COOK MACATEE, M.D., President, 1921

Henry Cook Macatee was born a Virginian, a Presbyterian of the Southern Church, and a gentleman. And to these traditions he has always been faithful.

He was President of the Medical Society in 1921. To have been elected to that high office has usually signified either an outstanding medical reputation or unusual service to the Society; these prerequisites were both abundantly fulfilled by Dr. Macatee, because at the time of his election he had already held prominent teaching and hospital positions as well as the office of Recording Secretary of the Society for the preceding fifteen years. To those of us who remember well the "Old Guard" who occupied the front seats every Wednesday evening, these were outstanding accomplishments for a doctor in his early forties. In those days the younger men were distinctly expected to listen and not be heard, so it was usually with a pounding heart and considerable diffidence that one arose. They were not to get too big too soon.

How wise was this choice is attested by the many constructive ideas which he advanced during his presidency and his many subsequent years on the Executive Committee (Board). As Chairman of the Committee on the Relationship of the Society to the Hospitals of the District, he was responsible for the development of certain fundamental medical policies which still remain in force. His clear, well-expressed opinions are always tempered by good judgment.

Family and its influence undoubtedly have a great bearing on the development of personality, and young Harry was blessed by the advantage of being born to Charles A. and Mary Cook Macatee of Front Royal, Va. as one of a moderately large family. He also had a very prominent uncle who was one of our own Past

Presidents, Dr. G. Wythe Cook. This childhood training was supplemented by attendance at the Front Royal Grammar School and the Randolph Macon Academy.

After these formative years his higher education was obtained at Columbian College and his medical degree from the same institution, now George Washington University, in 1900. His good scholarship was rewarded with the Faculty prize.

The progress of his education has never stopped and one of his hobbies has continued, the perfection of clear, forceful diction for which he has always been noted. A related hobby is etymology; he dearly loves the derivation of words. It is this which permits, and indeed compels, his unfailing choice of the right words and their combination into perfectly constructed sentences. If one could, perchance, ever best him in spelling, the finer meaning of words, or in grammar, it would indeed be an unusual thing. The writer knows this well during an intimate association of over 25 years in the office. During this close contact with Dr. Macatee for over a quarter of a century his qualities of patience and tolerance have always been evident. Not once has there been any circumstance calling for words of difference.

These same qualities have enabled him to remain unruffled through hours of debate in meetings of the Society and its committees and then to present the solution in carefully-thought-out terms.

His judgment and ability have been sought in many fields. Back in 1908 he was associated with Dr. George M. Kober as Secretary of the Presidential Homes Commission, a small homes' survey body appointed by President Theodore Roosevelt.

When the matter of hospital and patient finances became a pressing problem a number of years ago, with the resultant formation of Group Hospitalization and the Health Security Administration, Dr. Macatee was again called upon. He served on the Board of Trustees and was President of Health Security Administration from 1935 to 1947. During this time he was no figurehead but the actual guiding spirit of the organization which has contributed so much toward better medical care in the District of Columbia.

During his many years as the elected delegate from the Society to the American Medical Association he made himself known for not only his erudition but for his dignity, and thus reflected honor upon the Society. The same qualities of leadership resulted in his election to the office of President of the Medical Staff of Garfield Memorial Hospital, which he held for 14 years, and to the Board of Directors, on which he still serves.

His scientific attainments were recognized by his election to the Cosmos Club and to the Washington Academy of Sciences, as well as to the American College of Physicians and many small societies.

Church work has not been neglected. For many years he has been a leader in the congregation of the Church of the Pilgrims, serving first as a deacon, and since 1909 as an elder and clerk of the session. It may be said that he lives his religion during the week and does not do it on entering the church doors.

One would suppose that anyone concerned with all these activities and many others would be in a constant hustle and dither, but not Harry Macatee. He has not been known to ever show excitement and certainly not to manifest any sign of hurrying. As a matter of fact, he is always easy-going, usually a little late and apt to be somewhat forgetful and absent-minded.

No better argument could be brought against socialized medicine than the example of Dr. Macatee treating and considering the patient as a person with certain problems and not alone as a possessor of some pathologic lesion. Many of his patients are so dependent upon his advice that except in dire emergency they will save their troubles until his return from vacation rather than consult a substitute. Here his understanding of people and a quiet humor are big assets.

Speaking of vacations, it is at his cottage at Rehoboth Beach, Delaware, where he has for years spent a month or so in the summer, that he really enjoys life in the company of his family. Occasionally there is fishing. Of his prowess along that line there is no satisfactory record. However, there is tangible evidence to show his ability as an artist. Real peace and the pleasure of accomplishment come when he takes his water colors out to the sand dunes. Some of his pictures were seen last year at the Medical Society's art exhibit; his paintings have also been shown at national medical exhibits.

(Continued on page 672)

SPECIAL REPORT OF THE EXECUTIVE BOARD*

Your Board has had under consideration matters referred to in this report for more than a year. Its delay in presenting them for consideration was due to uncertainty as to the income which would accrue this year from dues and the expenditures which would have to be made. Late in the summer it became obvious that the income would be insufficient to pay expenses, let alone setting aside even a modest sum for capital expenditures. In the light of this situation your Board scheduled tonight's meeting.

Amendment XX to the Constitution and By-laws:

About a week ago a statement was mailed to each member setting forth reasons why Amendment XX should be adopted. To refresh your memory the proposed amendment reads as follows:

AMENDMENT XX

Section 1. Amendment IV of the Constitution and By-laws is hereby repealed.

Section 2. Effective January 1, 1950, Active members shall pay forty dollars per year in dues, except that recent graduates who have been in the active private practice of medicine less than three years shall pay for their first year ten dollars, for their second year twenty dollars, and thereafter forty dollars. Members, at their option, may pay such dues in two equal installments, the first installment being due and payable January 1st of each year and the second installment being due and payable the succeeding June 1st.

Copies of the statement mailed to members have been distributed again this evening. There is not much more to add to what has already been stated. Boiled down to essentials, reasons for the need for additional funds are high costs of operation and rapidly increasing responsibilities.

Your Board regrets that it will be necessary to reduce the Society's cash reserve to pay for improvements to the Society's property and new equipment needed in the Executive Offices. As has been pointed out in the statement you received, the cash reserve at the end of 1949 in the General Fund will be considerably lower than it should be.

It should be emphasized that there is still need for additional repairs, painting and improvements to the property. This building is now nearly thirty years old and it not only requires constant attention, if it is to be kept in the best condition, but it should also be modernized if it is to serve the Society adequately.

There is special need for better illumination in the auditorium. This improvement would involve the expenditure of between two and three thousand dollars. The ventilating system should also be over-

hauled. The auditorium would have been painted this past summer; however, the cost of doing so this year was not included in the budget. If it had been, funds would not have been available out of current income for this purpose.

There are many parts of this building with which most members are not familiar. However, they are in as much need of attention as the parts of the building seen by those who attend meetings.

These are just a few of the major expenditures which should be made in connection with the property.

The high cost of such materials as printing, stationery and other supplies needed in an office where there is as much activity as in ours is a major factor.

With respect to personnel in the Society's Executive Offices, not only is there need for at least one, possibly two, additional employees but adjustments must be made in the compensation of those now employed.

Dues of the Society were last increased in 1938. The Society has grown in every respect since that time. If its present status is to be maintained and its future financial stability assured, it is essential that the above amendment be adopted.

Purchase of Property at 1720 M Street, Northwest: It would be perhaps just as well, in bringing this matter before you again, to quote a portion of the report presented to the Society on March 2, 1949.

"Several months ago the purchase of the property at 1720 M Street, N.W., adjoining the Society's building at 1718 M Street, N.W., was proposed. Investigation was thereupon made to establish the value of the property and whether purchase was advisable at this time. The Board finally decided that it would be in the Society's interest to acquire the property; however, it was handicapped for the lack of funds. The Board concluded that an effort should be made to interest a physician or a group of physicians in acquiring the property with the understanding that if the Society was agreeable it would be purchased at a later date.

"Upon instruction of the Board, the Secretary-Treasurer discussed the matter with Dr. Oscar B. Hunter who promptly acquired title to the property. Dr. Hunter suggested several ways in which the Society could finance the purchase of the property at what it cost him without investing its own funds; however, no conclusion was arrived at until the meeting of the

* Adopted at a special Business Meeting of the Society, November 9, 1949.

Executive Board on January 31, 1949 when the Board had before it a recommendation of the House Committee that the property be acquired. The Board concurred and instructed the Secretary-Treasurer to discuss the purchase with the Union Trust Company of Washington, with which the Society has been doing business for many years. Out of these discussions have come the suggestions as to how the purchase might be financed."

It was suggested at that time that perhaps the most satisfactory method of raising funds to finance the purchase of this property would be to issue bonds. The Board was of the opinion that if this was approved by the Society it would not have too great difficulty disposing of the bonds to members.

As previously stated, Dr. Hunter has agreed to sell the property to the Society at cost to him, which is \$55,146.15. There is at present a first mortgage on this property of \$31,854.71 which leaves a balance of \$23,291.44 which would have to be paid in cash. If favorable action is taken to acquire this property and approval is given the bond issue, the amount of issue, the maturity date and interest rate to be paid must also be authorized.

Your Board recommends the purchase of the property at 1720 M Street, Northwest, because it believes it a good investment for the Society. It further recommends that bonds in the amount of \$25,000, maturing in ten years and bearing interest at the rate of three per cent, be issued.

It might be pointed out to members that the above bonds would be a sound investment as they would be a lien against the Society's property until retired. They would be sold to members of the Society only.

With respect to the income from this property, Dr. Hunter submitted statements showing that during the period August 25, 1948 to October 10, 1949 the income from rent, less the real estate agent's commissions, was \$6,430.40. Expenditures amounted to \$3,302.01, leaving a net income of \$3,128.39.

At the present time the first floor is not rented. Some repairs and redecorating are necessary before satisfactory tenants can be obtained. For the time being at least it is not contemplated that the property will be used by the Society itself.

Conclusion: Unless there is urgent business requiring attention, the next business meeting of the Society will be held the first Wednesday in March.

Respectfully submitted,

WILLIAM EARL CLARK, M.D., *Chairman*

WILLIAM P. HERBST, JR., M.D.

RAYMOND T. HOLDEN, M.D.

JOHN MINOR, M.D.

COURSEN B. CONKLIN, M.D.

WILLIAM M. BALLINGER, M.D.

WALTER FREEMAN, M.D.

THEODORE WIPRUD, *Secretary*

CONTINUED FEDERAL AID TO WASHINGTON INSTITUTIONS

Grants of \$2,174,900 by the National Cancer Institute for the construction of cancer research facilities in fourteen hospitals, universities and other institutions have been approved by Surgeon General of the Public Health Service Leonard A. Scheele upon the recommendation of the National Advisory Cancer Council. The grants have been made primarily to institutions closely affiliated with medical schools.

In Washington the George Washington University will benefit in the amount of \$250,000 from this recent grant. The new building will be located between Washington Circle and New Hampshire Avenue.

Cancer education for medical students is now aided in 75 of the country's 79 medical schools through Public Health Service grants. Among new

awards totaling \$634,971 just approved by Surgeon General Scheele is a continuation grant to George Washington University in the amount of \$25,000 to improve the present cancer training program. The funds will be expended under the direction of Dr. Calvin T. Klopp, Director of the University's Cancer Clinic.

Great variation in the training of future physicians to care for patients who have cancer was revealed in a report to the National Advisory Cancer Council at the meeting to consider grant applications. The cancer knowledge of 8,994 students in 32 medical schools was tested in a University of California project by Dr. Howard R. Bierman, Associate Professor of Oncology at the University of California in San Francisco. The series of 180 multiple choice questions was purposely designed so that no one,

CALENDAR OF MEETINGS

November 1	Medical Advisory Committee to Washington Regional Blood Center House Committee Section on Radiology Section on Anesthesiology
November 2	Health Section of United Com- munity Services
November 3	Executive Committee of Gallinger Municipal Hospital
November 7	Washington Ophthalmological So- ciety
November 8	Committee on Public Relations D. C. Dental Society Medical Officers' Reserve Units
November 9	Scientific Meeting of Society Woman's Auxiliary
November 10	Washington Psychoanalytic So- ciety
November 12	Washington School of Psychiatry
November 14	Washington Orthopedic Club Graduate Nurses' Association and D. C. League of Nursing Educa- tion
November 15	Grievance Committee Graduate Nurses' Association and D. C. League of Nursing Edu- cation
November 16	Scientific Meeting of Society Board of Trustees, Medical Service
November 17	Washington Psychiatric Society
November 18	Diabetes Association of D. C. Committee on Health and Re- search
November 22	Section on General Practice Medical Officers' Reserve Units
November 28	Executive Board
November 30	Scientific Meeting of Society

even an instructor of cancer subjects, could attain a perfect score. Disparity in the cancer knowledge of students in various schools was evident; the average score of seniors in one school was 50 per cent greater than the average score attained by seniors in another school. A new grant by the National Cancer Institute will enable Dr. Bierman to repeat his testing next spring. Using last year's results as a baseline, it will be possible to measure improvements in cancer education under the current programs aided by the National Cancer Institute teaching grants.

A new grant will enable Dr. Charlotte Donlan, Director of the Bureau of Cancer Control for the District Health Department, to study the cost of medically supervised home care for cancer patients in the District of Columbia. A plan for providing such home care has been worked out by the Montefiore Hospital in New York City to help alleviate the shortage of hospital beds for long-term patients. Under this plan costs were found to be less than one fourth of hospital care, including charges for visiting nurse service, medical care, housekeeping aid, physiotherapy, occupational therapy, supplies and equipment, and other items. The expense of supervised home care may vary greatly in different areas. The grant, in the amount of \$22,254, will assist the District Health Department in establishing a home care service in order to discover how much this type of care will cost in this area.

The Georgetown University School of Medicine will receive an additional \$7,250 which Dr. Charles F. Geschickter will use in his study of malignant bone tumors.

Hospitals and universities in 21 states and the District of Columbia were provided with continuation grants for research projects already under way. Institutions in the District of Columbia so benefited are:

Carnegie Institute of Washington: \$6,700 to Dr. L. B. Flexner for the study of cytological, biochemical and physiological differentiation of the embryonic cell.

Georgetown University School of Medicine: \$5,000 to Dr. Geschickter for an inventory of tissue regeneration in benign and malignant tumors.

George Washington University School of Medicine: \$8,286 to Dr. Warren Andrew for the study of cytological and cytochemical comparison of senile tissues with malignant growths from such tissues.

National Research Council: \$10,800 to Dr. Shields Warren for a diagnosis of neoplasia.

Two new research grants were approved: \$5,000 to Georgetown University School of Medicine to study therapeutic procedures for the retention and redistribution of radioactive phosphorus in patients with malignant disease, under the direction of Drs. Geschickter, M. M. Copeland and Martin Rubin; to George Washington University School of Medicine, \$6,120 for the study of physiological effects of bacterial polysaccharides under the direction of Dr. C. E. Leese.

NEW HEALTH OFFICER SECKINGER SWORN INTO OFFICE

Daniel Lamont Seckinger, M.D., Dr. P.H., was sworn in as Health Officer of the District of Columbia at 10:00 a.m., Thursday, November 3, 1949. Dr. Seckinger had been Acting Health Officer since the retirement of Dr. George C. Ruhland on September 30. The new Health Officer served as Assistant Health Officer and Coördinator of Health and Hospitals with the local health department since coming to the District in 1935.

After he was sworn in Dr. Seckinger stated that he anticipated no immediate and sweeping changes in the program and policies of the Health Department. He pointed to the remarkable extension of life expectancy in recent years which is attributable to the concentrated effort of the medical profession against preventable diseases in the earliest decades of life and also to the medical and surgical advances concerned with these age groups. "Now we need to think more about the diseases of the middle-aged and older people. This does not mean, however, a lessening of the emphasis in the fight against the diseases of young people."

Dr. Seckinger has an A.B. degree from Lenoir-Rhyne College, Hickory, North Carolina, and an M.A. degree from the University of North Carolina, where he was an instructor in English. He received his degree of Doctor of Medicine at Johns Hopkins Medical School in 1925. Following an internship at the Johns Hopkins Hospital, Baltimore, in 1926 he accepted a position of resident physician and surgeon at St. Mary's Hospital and Pierre Clinic, Pierre, South Dakota.

At this point Dr. Seckinger's interests turned to the field of public health and he was appointed to the assistant health officer's position in Savannah, Georgia, where he served from 1927 to 1930. He was also health officer for Chatham County during this time. He established the prenatal clinics of Savannah and Chatham Counties, which were also under his direct supervision during his term of office there.

Dr. Seckinger received his degree of Doctor of Public Health from Johns Hopkins School of Hygiene and Public Health in 1932, where he specialized in epidemiology and virus diseases.

Later he organized the Bureau of Preventable Diseases for the Rockefeller Foundation and the Georgia State Board of Health. He came to Washington in 1935 after a three-year term (1932-1935) as Director of Preventable Diseases and Chief Epi-

demologist of the State Board of Health, Atlanta, Georgia.

While here Dr. Seckinger served as Acting Superintendent of Gallinger Municipal Hospital. The Board of Commissioners urged him to accept the permanent position there, but he declined this offer to continue as Assistant Health Officer. He pioneered in the development of the alcoholic program as an integral part of the public health responsibility. The local Department was the first in the Nation to estab-



DANIEL L. SECKINGER, M.D.

lish an alcoholic clinic as a regular service. The methods employed in this program are now well recognized, and the pattern established has been followed elsewhere throughout the country, using complete community resources, in which Alcoholics Anonymous is an important factor—the first approach of this kind anywhere.

Contributions to medical science in which Dr. Seckinger has had a leading part include discovery of an ovarian (*corpus luteum*) hormone; the discovery of cyclic variations in the fallopian tube contractions of the domestic pig, *Macacus rhesus* monkey, and human beings which led to the discovery of the *corpus luteum* active principle, and this hormone is

now available commercially. Further experimental work in rural Georgia resulted in definitely establishing the epidemiology of amoebic dysentery, and protective measures for its control. His study of the epidemiology of typhoid fever led to changes in preparation of typhoid vaccine. The method suggested by Dr. Seckinger has become general throughout the Nation. It was first adopted by the Georgia health department as a result of failure of the older typhoid vaccine to establish immunization. Studies of malaria and the influence of drugs in its control were also conducted by Dr. Seckinger. This led to the development of atabrine, which was so widely used by our troops during World War II. It has been stated that without atabrine we would have lost the war in the Pacific.

More recently Dr. Seckinger has concerned himself with the study of nutritional factors in the causation of degenerative diseases and the relationship of mineral and vitamin deficiencies of foodstuffs grown on eroded soils. It has been determined that food grown on soils depleted of essential mineral elements are incapable of sustaining proper nutrition of animals and man.

Dr. Seckinger is President of the Metropolitan Health Officers Association, which has been instrumental in improving the hospital situation in several nearby Virginia and Maryland counties; has made more effective the handling of communicable disease reports, and the prevention of pollution in the waterways in this area. He has been Treasurer of the Interstate Commission on the Potomac River Basin and a representative of the District Government on the Commission. He is also Chairman of the Commission Land Committee, along with a group of agriculturalists and research workers of the Department of Agriculture and land grant colleges.

Among his professional affiliations Dr. Seckinger is a member of the American Medical Association, the Medical Society of the District of Columbia, Johns Hopkins Medical-Surgical Association, and a Fellow of the American Public Health Association. During the first World War he served two years as a bacteriologist with the U. S. Army at Fort Screven, Georgia, and Fort Ontario, Oswego, New York, before he studied medicine.

Mrs. Seckinger and his son, Daniel, Junior, reside

at 4923 Sedgwick Street, N.W. The latter plans to follow his father in his chosen profession of medicine.

MEETINGS

Wednesday, January 18

The Diabetes Association of the District of Columbia will present the following program:

"Imperative Questions in the Treatment of Diabetes," JOSEPH H. BARACH, M.D., Associate Professor of Medicine and Medical Director of the University Clinics, University of Pittsburgh School of Medicine; Past President of the American Diabetes Association; and Chairman of the Section on Metabolic and Endocrine Diseases, United States Public Health Service.

Wednesday, January 25

The following program will be sponsored by the *Washington Gynecological Society*:

"Some Remarks on Office Practice," L. A. CALKINS, M.D., Professor of Obstetrics and Gynecology, Kansas City University Medical Center. Dr. Calkins is also Secretary of the American Association of Obstetricians, Gynecologists and Abdominal Surgeons.

MEMBERSHIP

The following applicants for membership will be voted on at the meeting of the Executive Board, February 27, 1950:

For Active Membership

John W. DuChes, George Washington University—1943
Robert B. Irely, George Washington University—1946
A. Earl Vivino, Georgetown University—1948
Keene M. Wallace, George Washington University—1944
Carl H. Wells, George Washington University—1941
Oliver P. Winslow, University of Maryland—1945

For Associate Membership

June Carol Shafer, University of Wisconsin—1937
Meyer Robert Shear, University of Maryland—1937
Susan P. Souther, Johns Hopkins University—1923

Recent changes in membership status:

Active to Associate

Norvell Belt

Resigned

Associate

Ethel C. Dunham

SOUTHERN MEDICAL ASSOCIATION CONCLUDES SUCCESSFUL MEETING

Dr. Oscar B. Hunter, President of the Southern Medical Association, spared no effort in making the 43rd Annual Meeting of the SMA, November 14-17, the memorable event it proved for those who were able to attend.

This was a Kentucky meeting, the Campbell-Kenton County Medical Society being host to the convention; however, the meetings were held in Cincinnati, Ohio, where more hotel space and a larger auditorium were available. Most of the meetings were held in the Netherland Plaza Hotel.

Dr. Hunter presided at the first general business session on Monday morning, November 14. In the afternoon General Clinical Sessions in Medicine and Surgery were held, the programs for which had been arranged by President Hunter. Two Washington physicians, Dr. Custis Lee Hall, Professor of Surgery, George Washington University School of Medicine, and Dr. Lloyd G. Lewis, Professor of Urology of Georgetown University, appeared on the program for the Session on Surgery. The subjects of the papers presented were "The Modern Concept of Orthopedic Surgery" (Dr. Hall) and "Prostatism" (Dr. Lewis).

A number of Washington physicians took part in the sectional meetings. Following are the titles of the papers and the speakers, with the sections before which they were presented in parentheses: "Recent Advances in Antibiotic Therapy," Dr. Harry F. Dowling (Medicine); "Studies on Newborn Children of Rh Sensitized Mothers," Dr. O. Benwood Hunter, Jr. and Dr. John B. Ross (Pediatrics); "Variables in Industrial Absenteeism," Dr. R. Lomax Wells (Industrial Medicine and Surgery); "Placenta Previa," Dr. John L. Parks (Obstetrics); "Urinary Incontinence," Dr. Andrew Marchetti (Gynecology); "The Use of Combinations of Avertin, Pentothal Sodium and Nitrous Oxide for Operations about the Head and Neck," Drs. Seymour Alpert, Lloyd H. Mousel, and Charles S. Coakley (Anesthesiology).

Among discussants for scientific papers were Drs. H. Ford Anderson, Garnet W. Ault, Donald Stubbs and S. Ross Taggart.

Washington physicians contributed two scientific exhibits: "Correlation of Cytology with Pathologic Lesions," Drs. Frank S. Ashburn, Richard H. Fischer and O. Benwood Hunter, Jr.; "Routine Anosigmoidoscopy and Anorectal Disease," Dr. Jacob J. Weinstein, George Washington University Hospital.

Dr. Hunter, Jr., and Dr. Ross of Georgetown University School of Medicine presented a motion picture entitled "Exchange Transfusions."

President's Night, November 16, was a festive occasion, with Past Presidents and their wives and daughters invited as honored guests. Dr. Ernest E. Irons, President of the American Medical Association, gave the principal address on "The Deception of Nationalized Medicine." As the subject for his Presidential Address Dr. Hunter chose "The Frontiers of Clinical Pathology." Following his address he presented the SMA's Research Medal to Dr. Seale Harris, of Birmingham, Alabama, in recognition of his original and pioneer description of hyperinsulinism and his investigation of and contribution to the treatment of diabetes mellitus. Dr. Hamilton W. McKay, of Charlotte, N. C., was installed as the new President. The presentation of the Past Presidents' Medal to Dr. Hunter was made by Dr. W. L. Pressly of Due West, S. C., Chairman of the Council. Dr. Pressly, senior member of the Council, had earlier been elected Chairman of the Council in the absence of Dr. Arnold McNitt, who was unable to be present.

At noon the same day the George Washington University Medical Society had sponsored an alumni reception and luncheon in compliment to their distinguished alumnus and Mrs. Hunter. Dr. Herbert S. Gates, President of the Society, presided.

Dr. Hunter was presented with a certificate in appreciation of his contributions in the field of medicine in the role of pathologist, teacher and administrator. He was also given a booklet of letters from his fellow alumni and officers of the University and a book of greetings from those assembled.

Dr. Helen Gladys Kain was chairman of a special committee which arranged the luncheon. She was assisted by Dr. Gates and Mr. Lester A. Smith, Secretary of the Alumni Association. Among those who attended were Dr. Irons, President, and Dr. George F. Lull, Secretary, of the AMA; Council members and many other members of the SMA, including two of its past presidents, Dr. M. Y. Dabney, who is also Editor of the *Southern Medical Journal*, and Dr. Harvey Garrison; Dr. Coursen B. Conklin, the District Medical Society's senior delegate to the AMA; Washington physicians who participated in the scientific program; and many other friends and classmates of Dr. Hunter.

(Continued on page 672)

News and Personals

The 1950 Scientific Assembly of the American Academy of General Practice will be held in St. Louis, Missouri, February 20-23. Headquarters will be the Kiel Auditorium. Hotel reservations should be made before January 16, 1950 and should be addressed to the Hotels Reservation Bureau, A.A.G.P., 1420 Syndicate Trust Building, St. Louis 1, Mo.

The Coördinating Committee of the National Education Campaign of the AMA has selected Sunday, February 12, as the date for a meeting in Chicago. Campaign workers from each state are expected to attend.

The 35th Clinical Congress of the American College of Surgeons was host to the Sixth Inter-American Congress of Surgery during its meeting in Chicago the latter part of October. The College of Surgeons conferred honorary fellowship upon eight outstanding surgeons of the United States and foreign countries during special convocation ceremonies, October 21. Major General Malcolm C. Grow, Surgeon General of the United States Air Force, was one of the eight so honored.

Of 921 initiates whom the College received into fellowship were the following members of the District Medical Society: Drs. Earl B. Barnes, Albert S. Bright, Robert J. Coffey, Samuel M. Dodek, Louis J. Goffredi, Everett J. Gordon, Malcolm C. McKaig, George T. Sharp, Jr., William T. Spence, John W. Walsh, Jacob J. Weinstein, and Joseph Rogers Young.

The United States Chapter of the International College of Surgeons closed its four-day meeting in Atlantic City, November 11. Dr. Custis Lee Hall, President of the Chapter, notified the Editorial Offices of the ANNALS that several Washington physicians were certified to fellowship in the College, namely, Drs. Leonard S. Berman, Edward B. Tuohy, Ferdinand Welebir, Henry F. Davies, Aaron H.

Gerber, and Brig. General Wallace H. Graham. Major General Edgar E. Hume was named an Honorary fellow of the College and Dr. Norman P. Scala an Associate member.

Among those who presented papers during the scientific sessions were Dr. Hall, Dr. James W. Watts and Dr. Charles F. Geschickter, all of Washington.

The Association of Military Surgeons held its annual convention at the Hotel Statler in Washington, November 10-12. At the opening session, November 11, greetings were extended guests by District Commissioner John Russell Young, Dr. Walter Freeman, President of the Medical Society of the District of Columbia, and Dr. James J. Greeves, President of the Dental Society of the District of Columbia. Following remarks by the four Surgeons General, R. W. Bliss (Army), C. A. Swanson (Navy), Malcolm C. Grow (Air Force), and Leonard A. Scheele (USPHS), and by Dr. Paul B. Magnuson, Chief Medical Director of Veterans Administration, the President of the Association, Rear Admiral Joel T. Boone, M.C., U.S.N., delivered the Presidential Address.

On Friday, November 11, four papers were presented by members of the District Medical Society: "Valuable Agents and Procedures for Analgesia and Anesthesia," Dr. Edward Tuohy; "Experimental Observations on Cardiac Trauma," Dr. Brian Blades; "Advances in Plastic Surgery during the Late War," Drs. William C. Meloy and Gordon S. Letterman; and "Aviation Medicine," Brig. General Wallace H. Graham, M.C., U.S.A.

Commander Daniel F. Lynch, D. C., U.S.N.R., an Associate member of the Medical Society, was one of the interrogators in a Panel Discussion on the Volunteer Reserve Components.

Dr. Oscar B. Hunter and Dr. J. J. Mundell were members of the Executive Committee which made arrangements for the Convention; Drs. Hugh H. Hussey and Calvin T. Klopp served on the Scientific Exhibits Committee.

The Secretary of the District Medical Society has been notified of **two vacancies at the Station Hospital in Camp Lee, Virginia, for Medical Officers** (Surgical-General), GS-12, with a salary of \$6,400 per annum. The requirements for the position are:

1. Graduation from a medical school of recognized standing, with a degree of Doctor of Medicine.
2. At least one year of progressively responsible professional experience in the field of medicine for which application is being made.
3. Current license to practice medicine or surgery in a state or territory of the United States.

A job description of the duties to be performed is available in the Medical Society's offices to interested physicians.

The Ninth Annual Physicians' Golf Tournament held at the Kenwood Golf and Country Club on October 27 was undoubtedly one of the most successful sports events sponsored by the Medical Society. Ninety-eight players were listed as having participated in the tournament, of which some sixty remained for dinner.

Winners were as follows:

1st low gross, William J. Evans 76; 2nd low gross, George R. Huffman and H. Franklin Kreuzburg 80; 3rd low gross, Leonard S. Berman, Hayden Kirby-Smith, and J. Phelps Hand 82; 4th low gross, Ben Fort 83.

1st low net, Edgar E. Quayle 66; 2nd low net, John U. Schwarzmans 67; 3rd low net, E. Raymond Fenton and Norvell Belt 70; 4th low net, Frank D. Costenbader, S. Ross Taggart, Duane C. Richtmeyer, and Carlton Price 71.

Prizes for the tournament were donated by the following firms:

Abbott's Laboratories, Alaska Pharmacy, Aloe Company, Beuchler's, Brenner-Photo Supply Company, Breon & Company, Camel Cigarettes, Corwin Pharmacy, C. W. Stanfield, Day & Company, Doak Company, Edmonds Optician, Franklin & Strunk, Gibson Company, Gilman Drug Store, Hall & Sothoron, Higger's Drugs, Hines Funeral Home, Kloman's Instrument Company, Lee Funeral Home, Mead Johnson & Company, Medical Arts Pharmacy, Meredyth Company, Ortho Pharmaceutical Corporation, Park Lane Pharmacy, Phillip Morris, Rexall Drugs, Schwartz Pharmacy, Service Pharmacy, E. R. Squibb & Sons, Teunis Optician, Tschiffely Brothers, T. Kendall Twigg Vitamin Company, U. S. Vitamin Company, and Wm. I. Merrell Company.

Members of the Society's Sports Committee, who made arrangements for the tournament, were Dr. Kirby-Smith, Chairman; Drs. Fenton, Huffman, Kreuzburg, William R. Perkins, Jr., Roy F. Dun-

mire, John E. Everett, Joseph M. Friedman, Russell Jon Jansen, J. Earl Kadan, Richard J. McNulty, Nicholas G. Pistolas, Howard L. Smith, Howard F. Strine, Sherman A. Thomas, and Samuel Zola.

The Section on Otolaryngology met on November 21 at the Army-Navy Club. A paper on "Irradiation to the Nasopharynx" was presented by Dr. Donald F. Proctor, Associate Professor of Otolaryngology, Johns Hopkins University School of Medicine.

The Section held its first fall meeting, October 25, at the Army-Navy Club. Guest of honor at this meeting was Dr. A. B. Bennett, one of the organizers of the Section and Past President of the Medical Society of the District of Columbia. Dr. Bennett, who recently celebrated his 70th birthday, served on the Medical Society's Executive Board for 15 years.

Dr. G. B. Tribble, who was the Section's official delegate to the recent International Congress on Otolaryngology in London, gave a report on the meeting. Drs. Harry S. Bernton and Ralph M. Caulk led the discussion which followed his report.

Drs. T. Frasier Williams and Irvin Feldman reported on the proceedings of the meeting of the American Academy of Ophthalmology and Otolaryngology which was held in Chicago during October.

Drs. S. A. Alexander and Victor R. Alfaro were elected delegates to the Pan American Congress of Otolaryngology, which will be held in Montevideo, Uruguay, in January, 1950.

The Section on Neurology and Psychiatry held a joint meeting with the **Washington Psychiatric Society**, November 17, in the Medical Society's auditorium. Dr. Nolan D. C. Lewis of New York gave the principal address on "Lobotomy Research." His paper was discussed by Drs. Harvey J. Tompkins, James W. Watts and Winfred Overholser.

The Section on General Practice met in the Medical Society's auditorium, November 22. Dr. Moses Paulson, Assistant Professor of Medicine of Johns Hopkins University School of Medicine, was the guest speaker. He spoke on "Practical Aspects of the Diarrheas and Dysenteries of the Adult."

The Washington Psychiatric Society will hold its annual meeting and election of officers, January 12, in the Medical Society's building. Dr. Addison M. Duval will deliver his Presidential Address. Dr.

George Stevenson, President of the American Psychiatric Association, will be the guest speaker.

The **Medical Arts Society** will meet, January 12, at the Kennedy-Warren. Dr. J. Ogle Warfield will present a paper on "Gastric Cancer."

The **District Dental Society** invited members of the Medical Society of the District of Columbia to its November 8 meeting, which was devoted to a consideration of "Cancer of the Mouth." The discussion followed, to some extent, a monograph on "Mouth Cancer and the Dentist" by Dr. Hayes Martin, which was recently mailed by the American Cancer Society to all members of the American Dental Association.

Appearing on the program were the following physicians: Dr. Calvin T. Klopp, Coördinator of Cancer Activities, George Washington University School of Medicine; Dr. Theodore Winship, Associate Pathologist at Garfield, Children's and Episcopal Hospitals; Dr. Murray M. Copeland, Director of the Department of Oncology, Georgetown University Medical Center; and Dr. Arthur Dick, faculty member of the Georgetown Medical and Dental Schools.

Dr. Margaret E. Callan gave a talk on "Anesthesia" before the **Women's Medical Society**, November 1, in the Solarium of Doctors Hospital. A number of women medical students, interns and residents were present as guests of the Society.

Dr. Ives Hendrick, of Boston, addressed the **Washington Psychoanalytic Society**, November 10. His paper on "Early Ego Development: Identification in Infancy" was discussed by Dr. Edith Weigert and Dr. Alfred H. Stanton.

The fall meeting of the **Medical Society of St. Elizabeths Hospital** was held on October 28. Commander Thomas A. Harris, M.C., U.S.N., spoke on "Frontiers of Preventive Psychiatry."

During the business meeting, the following new officers were installed:

Dr. Morris Kleinerman, *President*; Dr. J. Peter Murphy, *Vice President*; Dr. Norman Taub, *Secretary-Treasurer*.

Dr. Hobart A. Riemann addressed the **George Washington University Medical Society**, November

18. Dr. Riemann is Professor of Medicine at the Jefferson Medical College of Philadelphia. His topic for presentation, "Grippe Syndrome," was particularly timely.

The Editorial Offices of the *Journal of the National Medical Association* were moved to 1221 Girard Street, N.W., Washington 9, D. C., on November 1. Dr. W. Montague Cobb, the new Editor-in-chief, will assume responsibility for the journal beginning with the January 1950 issue. Dr. U. G. Dailey is the retiring Editor. The offices were formerly located in Chicago, Illinois.

The **Graduate Nurses Association and the District League of Nursing Education** held a series of meetings during November instead of a continuous annual session as in the past. This schedule of meetings on five different days was arranged in order to permit better attendance without disrupting hospital routines and other nursing services.

District Medical Society members were guest speakers at three section meetings, November 7. Dr. Thomas Leonard, Clinical Instructor in Obstetrics and Gynecology at George Washington University School of Medicine, addressed the General Duty Section at Emergency Hospital on the subject of "Malignancies."

"The V.D. Control Campaign" was the subject of a panel discussion for the Public Health Section at the Walsh House. Dr. S. Ross Taggart, Director of the Bureau of Venereal Diseases of the District Health Department, led the discussion.

Dr. Harold Hirsh addressed the Private Duty Section at Doctors Hospital on "The Newer Drugs."

Both organizations held business sessions in the Medical Society's auditorium, November 14, the League in the afternoon and the Association in the evening. The League sponsored an Institute on Guidance in the Society's building, November 15.

Equipment for a new cardiac clinic, valued at \$4,000, was presented to **Emergency Hospital** by the Variety Club of Washington. Formal presentation of the gift was made by Mr. Jake Flax, Chief Barker of the Club, and Mr. Fred S. Kogod, Chairman of the Club's Welfare Committee, November 12. Mr. Samuel H. Kauffman, President of the Hospital's Board of Directors, accepted the gift. Dr. John A.

Reisinger, Chief of the Cardiac Clinic, said the donation will permit centralization of the Hospital's cardiac work in one department.

Dr. John A. Swartwout was elected President for 1949-50 of the **Southern Homeopathic Medical Association** during its 65th Annual Convention in St. Petersburg, Florida, October 18-21. Dr. Swartwout presented two papers during the Convention, one on "Recent Advances in Anesthesiology" and the other on "Modern Advancements in the Treatment of Hemorrhage and Shock."

The 1950 meeting of the Association will be held in Chicago.

Dr. Victor R. Alfaro has been appointed Professor of Otorhinolaryngology of Georgetown University School of Medicine, succeeding Dr. Frederick C. Schreiber, who resigned. Dr. Alfaro was formerly Assistant Professor of Otorhinolaryngology.

Dr. Alfaro is an alumnus of Georgetown, having received his medical degree in 1929. He took post-graduate work in the field of otorhinolaryngology at the University of Pennsylvania and at the Chevalier Jackson Clinic of Temple University. He is on the surgical staff of Episcopal Eye, Ear and Throat and Veterans Administration Hospitals. During World War II he held the rank of Lieutenant Colonel in the Army Medical Corps.

Dr. Ronald Cox, Assistant Clinical Professor of Ophthalmology of George Washington University School of Medicine, has been appointed by President of the University Marvin to represent the University at the 16th International Congress of Ophthalmology, which will convene in London, July 17-21, 1950. Dr. Cox will deliver a paper on "Ocular Brucellosis." The Congress meets once every four years and attracts eye specialists from all over the world.

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. The Society maintains a Speakers Bureau, headed by Dr. Henry A. Grennan, through which requests for speakers for lay groups are filled.

<i>Date</i>	<i>Speaker</i>	<i>Subject or Title</i>	<i>Organization</i>
November 8	Dr. Winfred Overholser	Mental Health	Hebrew Sisters Aid Circle
November 9	Dr. Morton Rose	Heart Disease	Group from Beth Shalom Congregation
November 9	Dr. Julius Schreiber	Your Child and His Community	Washington Ethical Society
November 10	Dr. Frank J. Eichenlaub	Socialized Medicine	Washington Nurses' Association
November 13	Dr. Maurice H. Friedman	National Health Program	Sunday Evening Forum of First Evangelical and Reformed Church
November 14	Dr. James A. Gannon, Jr.	Socialized Medicine	Current Events Association of Housewives
November 14	Dr. Robert A. Keilty	This Is TB	Hillcrest Citizens' Association
November 15	Dr. Charlotte Donlon	Cancer	Kappa Kappa Gamma Alumnae
November 16	Dr. Leopold E. Wexberg	Your Child and Our Social Code	Washington Ethical Society
November 17	Dr. Maurice Protas	Diabetes Detection	Executive Officers of Government Bureaus
November 18	Dr. Sidney Olansky	Sociological Aspects of VD	Brightwood Citizens' Association

Dr. Wallace M. Yater, Editor of the *MEDICAL ANNALS*, was appointed Chairman of the Program Committee for the 1950 Conference of AMA State Medical Association Secretaries and Editors. Dr. Yater was a member of the Program Committee for the recent Conference in Chicago, November 3 and 4.

Dr. Murray M. Copeland, Professor of Oncology, Georgetown University Medical Center, presented a paper on "Some Interesting Aspects of Benign Tumors of the Breast" at the evening meeting of the Fourth Annual Tumor Day at the Jewish Hospital, Philadelphia, November 15.

On November 3-5 Dr. Copeland attended the meeting of the Interurban Orthopaedic Club in New York; he also was present at the meeting of the Southern Surgical Association at The Homestead, Hot Springs, Virginia, December 6-8.

Colonel Joseph H. McNinch, Medical Corps, has completed his tour of duty as Director of the Army Medical Library and has been transferred to the Office of the Surgeon General, U. S. Army, where he will continue with the writing of the History of the Medical Department, U. S. Army, in World War II. His duties as Director of the Library have been assumed by Major Frank B. Rogers of the Medical Corps.

Dr. Addison M. Duval discussed standards for the care of psychiatric patients in general hospitals at the 28th Annual Hospital Standardization Conference sponsored by the American College of Surgeons in Chicago, October 18.

Theodore Wiprud has been appointed Chairman of the Information and Public Relations Committee for the Washington Assembly of the Southeastern Surgical Congress, which will meet at the Shoreham Hotel, March 6-9, 1950. Members of the committee are Drs. Robert J. Coffey, John H. Lyons, Aubrey O. Hampton, James W. Watts and Paul S. Putzki.

Dr. John A. Reed, Secretary of the American Diabetes Association, participated in the Seminar on Diabetes in Industry which was held at the Mellon Institute in Pittsburgh during the 14th Annual

Meeting of the Industrial Hygiene Foundation. Dr. Reed's paper was entitled, "The Role of the Medical Department in the Management of Accident Cases to Diabetics."

Dr. John Parks, Professor of Obstetrics and Gynecology of George Washington University School of Medicine, and **Dr. J. Ross Veal**, Associate Professor of Surgery of Georgetown University, were guest speakers at the 19th Annual Assembly of the Oklahoma City Clinical Society, which was held at the Biltmore Hotel in Oklahoma City, October 24-27.

Dr. Donald Stubbs, who attended the Annual Meeting of the Southern Medical Association in Cincinnati, Ohio, November 14-17, was invited to give an after-dinner talk before the Cincinnati Society of Anesthesiology during his visit. Members of the Section on Anesthesiology of the SMA were present as guests of the Society. He spoke on "The Relation of Anesthesiology to Safe Surgery."

Dr. Malcolm C. McKaig is taking a permanent commission in the Medical Corps of the Air Force. He left Washington, November 28, en route to the Philippines, where he will serve as Chief of Surgery at the Clark Air Base with the rank of Major.

Drs. Raymond A. Osbourn and George R. Spence were recently certified by their specialty boards. Dr. Osbourn is now a diplomate of the American Board of Dermatology and Syphilology, and Dr. Spence a diplomate of the American Board of Pediatrics.

Dr. Benjamin Manchester was invited to address the Gastonia County (North Carolina) Medical Society, October 25. He presented two papers, "Heart Disease in Pregnancy" and "The Use of Anticoagulants in Thromboembolic Disease."

Drs. M. Noel Stow and Benjamin Rones were joint instructors for a course in "Clinical Pathology of the Eye" during the meeting of the American Academy of Ophthalmology and Otolaryngology in Chicago, October 10-15.

Drs. J. W. Peabody and F. S. Ashburn are recent participants in the Conferences and Clinics of the

National Naval Medical Center. The names of **Drs. F. D. Threadgill and Charles S. Wise** have appeared frequently this fall on programs of the Professional Staff Proceedings of Walter Reed General Hospital.

Dr. Charles P. Cake, of Arlington, was elected President of the Metropolitan Washington Tuberculosis Conference, which was held in the Federal Security building, November 3.

BOOK REVIEWS

Care of the Surgical Patient, Including Pathologic Physiology and Principles of Diagnosis and Treatment. JACOB FINE, M.D., Surgeon-in-chief, Beth Israel Hospital; Professor of Surgery, Beth Israel Hospital, Harvard Medical School. Price, \$8.00. Pp. 544. Philadelphia: Saunders, 1949.

Readers of surgical and experimental journals are all familiar with the many important clinical and basic investigations of Dr. Jacob Fine. Therefore a purely clinical book by one of the prominent men in surgery is eagerly accepted.

The reviewer has enjoyed and learned a great deal from "Care of the Surgical Patient" by Dr. Jacob Fine, published by the W. B. Saunders Company.

The book is filled with important and pertinent facts of surgical significance. Six major sections comprise the arrangement of the book. The first is entitled "General Considerations" and includes a discussion of fluid and electrolyte balance, nutrition in surgical patients, hemorrhage and traumatic shock, surgical infections, as well as hints for surgical diagnosis.

Section Two describes the diagnosis and treatment of surgical diseases in the regions of the body. Special sections are devoted to burns, pediatric, plastic, orthopedic, gynecologic, urologic, and peripheral vascular surgery. Endocrine diseases and hormone therapy are grouped in the third division. Many of the confused opinions on the management of endocrine disorders are readily clarified.

"Coincidental Medical Illnesses in Surgical Patients," Section Four, describes the facts of importance to the surgeon in the anemias and blood dyscrasias, diabetes mellitus, common skin disorders, and renal disorders. The latter chapter discusses the important recent advances in the treatment of renal suppression and azotemia.

A brief description of the procedures and their relationship to surgical management of patients is included in Section Five called "Clinical and Laboratory Methodology." This chapter is particularly valuable to the young resident and intern who must know the ever-growing importance of laboratory chemical studies in surgical patients.

Seven chapters ranging from preoperative preparation and anesthesia to intermediate and late postoperative care and postoperative complications are elucidated in

Section Six. An interesting division in this section is the one devoted to special and specific medications. Eleven pages are illustrated in chart form describing the special and common drugs of surgical importance. The tables are further divided into regions of the body, and each drug is shown as to route of administration, form available, dosage, and indications for use. These tables are a handy guide for therapy.

A trainee in surgery will find Dr. Fine's text extremely valuable during his years of training. Likewise, the busy surgeon will have available to him the many new advances simply described in a direct manner.

This text is particularly distinguished by a new approach in medical writing. The author describes the book thusly in his preface: "The material is presented in much the same manner as one might discuss the subject in an informal lecture or seminar to students or graduates in training. The substance of each section represents the considered opinion of members of the staff of a teaching hospital as to what constitutes the best standards of practice. Only an occasional reference is made to the authority for a statement." Since the scope of the book is sufficiently broad to be useful to those interested in surgery as well as to the physicians dealing directly or indirectly with the surgical patients, "Care of the Surgical Patient" will find a place in the library of many physicians.

JACOB J. WEINSTEIN, M.D.

Operations of General Surgery, 2nd ed. THOMAS G. ORR, M.D., Professor of Surgery, University of Kansas School of Medicine, Kansas City, Kansas. Price, \$13.50. Pp. 890, with 1,700 step-by-step illustrations on 721 figures. Philadelphia: Saunders, 1949.

Realizing that the general surgeon is often called upon to do operations done by surgeons in the special fields of surgery, many operations are illustrated and described that ordinarily appear only in books of the surgical specialties. To emphasize the general surgical features of the book the chapters have been arranged, in so far as possible, in systems rather than in strictly anatomic divisions.

Because of the necessity for every surgeon knowing the fundamentals of wound healing and treatment of

fresh wounds, appropriate chapters on these subjects have been included. To clarify points in operative technic, a brief description of the anatomy involved is included. The indications for the operation have been summarized, and a section on "dangers and safeguards" precedes description of the most important operations. Illustrations have been emphasized, since it is thought that a clear visualization of the steps in an operation is many times more instructive than the descriptive text. The text is therefore brief.

In this (second) edition no change has been made in the chapter arrangements, but additions or revisions have been made in every chapter. Many new drawings have been added, and some of those used in the former edition have been replaced with illustrations of newer technic.

Modern technics for lobectomy have been described in the chapter on Thorax and Respiratory System. Callander's technic has been added to the chapter on Amputations. Most of the illustrations on the breast have been replaced by new illustrations. New technics for blood vessel anastomosis, treatment of embolism and venous disease are included in the chapter on the Circulatory System. The technic of wound closure with steel wire, technic of hernia repair using Cooper's ligament, and a more complete discussion of transverse incisions are included in appropriate chapters.

The most important additions have been added to the chapters on the Digestive System and on Congenital Anomalies. New technics for esophagogastrotomy, total gastrectomy, pancreaticoduodenectomy, repair of strictures of the biliary ducts, colon resections and prolapse of the rectum are described. The work of Blalock, Gross and others on the surgical treatment of anomalies of the aortic arch has been added.

This is an excellent text on operative general surgery for the general surgeon and the resident surgeon in training.

PAUL A. REED, M.D.

Essentials of Gynecologic Endocrinology [with Sections on the Male]. GARDNER M. RILEY, PH.D., Assistant Professor of Obstetrics and Gynecology, University of Michigan Medical School. Price, paper, \$3.00. Pp. 205, with 35 figures. Ann Arbor, Mich.: Caduceus Press, 1948.

This text is well organized, accurate and easy to read. The material is up to date and has excellent references. The author is clear and fair in his discussion of newer and often controversial subjects such as estrogenic therapy in repeated abortions and in toxemias. Although the book is primarily intended to review gynecologic endocrinology it does touch briefly on the male gonads and other endo-

crine systems. This is commendable, for the endocrine aspects of the female gonads cannot be dissociated from the other glands of internal secretion.

It is regrettable that the author advocates the unscientific and outmoded method of administering thyroid medication in three doses a day.

The material is perhaps too condensed for the student, but is recommended for the intern, resident or practising physician whose work brings him into occasional contact with endocrinologic problems pertaining to women. It should prove of value for a review of the subject for any physician, including the specialist in gynecology.

L. KYLE, M.D.

Psychiatry in General Practice. MELVIN W. THORNER, M.D., D.Sc., Assistant Professor of Neurology, The Graduate School of Medicine, University of Pennsylvania. Price, \$8.00. Pp. 659. Philadelphia: Saunders, 1948.

As a rule, few textbooks on psychiatry meet the requirements of a text today in the sense of being an open door to the subject, difficult as it is, and of extending a welcome that will stimulate further inquiry into the field. Dr. Thorner's book, however, is the exception that proves the rule.

The author, in his preface, modestly asserts that it is "an attempt to lift psychiatry out of the realm of terra incognita for those whose primary efforts are spent in other fields." The attempt is quite successful. The greater part of the book is demonstrative in the form of case histories written in an excellent prose style wherein the patient is allowed to speak for himself. The discussions preceding and following each history are in "simple and non-technical" language, and common sense predominates with very little of the theoretical and controversial to confuse the reader. The author's approach also savors of a rare humor and pathos not often found in any text, least of all one on psychiatry.

Mechanically, the book is divided into four main sections—Introduction, The People, The Methods, and Appendices. The People, aptly described as "intelligent," "dull," "unhappy," "dreamy," "suspicious," etc., and, of course, "the rest of us," form the various chapter headings. The Methods includes the history and physical examination, the approach to a patient, various forms of therapy—chemotherapy, shock, and psychotherapy—historically developed, and the therapeutic aims in psychiatry. The Appendices includes a classification of mental diseases and an excellent discussion of commitment procedures, a pertinent topic especially for the general practitioner who is frequently faced with these problems.

In summary, this is an excellent book for introducing psychiatry in a pleasant and interesting way to medical students and practicing physicians in fields other than psychiatry, and a cogent reminder to psychiatrists that their chosen field of inquiry must embrace the practical and realistic as well as the theoretical if they wish to achieve success in a truly scientific manner.

HENRY R. LYONS, M.D.

Fundamentals of Internal Medicine, 3rd ed. WALLACE MASON YATER, A.B., M.D., M.S. (in Med.), F.A.C.P., Director, Yater Clinic, Washington, D. C.; formerly Professor of Medicine and Director of the Department of Medicine, Georgetown University School of Medicine; Physician-in-chief, Georgetown University Hospital; Physician-in-chief, Gallinger Municipal Hospital, Washington, D. C.; and Fellow in Medicine, The Mayo Foundation. Price, \$12.00. Pp. 1451, with 315 figures. New York: Appleton-Century-Crofts, 1949.

This is the third edition of this outstanding and popular work. It has been thoroughly revised and brought up to date. The author, clearly conscious of the fact that present-day medicine with its many advances and changes could not be presented authoritatively by any one physician, enlisted the collaboration of eighteen confrères and physician-friends eminently qualified to aid him in its successful accomplishment. He has remained loyal to his original commitment of making "readily available in simple form . . . the essentials of Internal Medicine." The volume is larger than those of preceding editions due to the addition of new subject matter as well as changes necessary to bring the work up to date.

An outstanding chapter is the one devoted to Electrocardiography by Dr. Joseph M. Barker. New additions in the book are those devoted to chemotherapy and therapy with antibiotics and inhalation therapy. These are well written and lucidly presented. Another section worthy of special mention is contributed by Dr. Hugh H. Hussey in which symptomatic and supportive treatment is discussed. This section could well be read and reread from time to time by any intern, resident or physician newly launching into the practice of medicine. The senior author has assumed the responsibility of presenting the material in the sections covering Diseases of the Heart, the Blood Vessels, the Kidneys, the Blood and Blood-forming Organs, the Respiratory System, the Digestive System, the Locomotor System, the Spleen and Reticulo-endothelial System, of Metabolism, the Infectious Diseases, Dietetics, and the final chapter—"The Physician Himself." Each subject is clearly, concisely and authoritatively presented. There is no padding by repetition, this being avoided by making page reference to the loca-

tion of the detailed discussion of the subject matter in question.

Many excellent photographs, photomicrographs, graphs, differential tables and roentgen studies amplify the subject matter throughout the treatise. At the end of each chapter is listed a reading bibliography of "Some Recommended Texts." Unique is an index found at the introduction to each chapter which makes available at a glance the subjects covered. At the end of the volume is a large and excellent index covering the entire work.

This work should receive a warm welcome by medical students, interns and practitioners to whom it is recommended as an excellent reference volume covering the Fundamentals of Internal Medicine.

COLONEL CHARLES R. MUELLER, M.C., U.S.A.

BOOKS RECEIVED FOR REVIEW

Acknowledgment is made of the following books which have been received for review:

The Eye and Its Diseases, 2nd ed., by 92 International Authorities. Edited by CONRAD BERENS, M.D., F.A.C.S., Managing Director of The Ophthalmological Foundation, Inc.; President, Snyder Ophthalmic Foundation; President, American Academy of Ophthalmology and Otolaryngology; Diplomate and former Member, American Board of Plastic Surgeons; President, Pan American Association of Ophthalmology; formerly Chairman of the Section on Ophthalmology of the American Medical Association; Fellow of the American Ophthalmological Society; Fellow of the American Illuminating Engineering Society; Fellow of the Aero-Medical Association; Vice President, National Society for the Prevention of Blindness; Vice President, International Society for the Prevention of Blindness. Price, \$16.00. Pp. 1092, with 436 figures (8 in color). Philadelphia: Saunders, 1949.

A Textbook of Surgery, 5th ed., by American Authors, Edited by FREDERICK CHRISTOPHER, B.S., M.D., F.A.C.S., Professor of Surgery, Northwestern University Medical School; Chief Surgeon, Evanston (Illinois) Hospital. Price, \$13.00. Pp. 1550, with 1465 illustrations on 742 figures. Philadelphia: Saunders, 1949.

An Atlas of the Blood and Bone Marrow. R. PHILIP CUSTER, M.D., Director, Laboratories of the Presbyterian Hospital in Philadelphia; Assistant Professor of Pathology, The University of Pennsylvania School of Medicine; Consultant to the Armed Forces Institute of Pathology. Price, \$15.00. Pp. 321, with 285 figures (42 in color). Philadelphia: Saunders, 1949.

Diseases of the Heart. CHARLES K. FRIEDBERG, M.D., Associate Physician, Mt. Sinai Hospital, New York; Lecturer in Medicine, Columbia University. Price, \$11.50. Pp. 1081, with 79 figures. Philadelphia: Saunders, 1949.

Manual of Serologic Tests for Syphilis. This manual, prepared with the assistance of the originators of each test technic, was assembled at the Venereal Disease Research Laboratory, U. S. Marine Hospital, Staten Island 4, N. Y. Director: J. F. MAHONEY, Medical Director, Public Health Service, Federal Security Agency. The manual supersedes Supplements 9 and 11 to *Venereal Disease Information* and VD-Graphic 85.

Normal Values in Clinical Medicine. F. WILLIAM SUNDERMAN, M.D., Ph.D., Professor of Experimental Medicine and Clinical Pathology, University of Texas Postgraduate School of Medicine; Chief of The Department of Clinical Pathology and Director of Clinical Research, M. D. Anderson Hospital for Cancer Research, Houston, Texas, AND FREDERICK BOERNER, V.M.D., Late Associate Professor of Clinical Bacteriology, Graduate School of Medicine, University of Pennsylvania, and Assistant Professor of Bacteriology, The School of Medicine, University of Pennsylvania; Bacteriologist, The Graduate Hospital of Philadelphia; Advanced Bacteriologist, Pennsylvania Department of Health. Price, \$14.00. Pp. 845, with 237 figures and 413 tables. Philadelphia: Saunders, 1949.

Sixth Semi-annual Report of the Atomic Energy Commission. Pp. 203. Washington, D. C.: Government Printing Office, July 1949.

Acknowledgment is also made of the following reference books:

Golden Jubilee World Tribute to Dr. Sidney V. Haas in Honor of His Pioneering Contribution to Celiac Therapy and the Treatment of the Completion of His Fiftieth Year of Medical Practice. Pp. 38. New York: The Committee for the Golden Jubilee Tribute to Dr. Sidney V. Haas, 1949.

Minutes of the Seventh Streptomycin Conference held on April 21, 22, 23 and 24, 1949, Cosmopolitan Hotel, Denver, Colorado; prepared and edited by Veterans Administration Area Office, Washington, D. C. Paper bound. Pp. 360. Washington, D. C.: Government Printing Office, 1949.

CORRESPONDENCE

NEW YORK 5, N. Y., November 4, 1949

TO THE EDITOR

MEDICAL ANNALS OF D. C.

1718 M STREET, N.W.

WASHINGTON 6, D. C.

There have been many inquiries recently regarding the arrangements for covering the cost of care for poliomyelitis patients. There are a number of factors which will be of interest to your readers.

During 1949 a poliomyelitis incidence of unprecedented size (more than 37,000 stricken since January 1) has put serious financial strain upon the National Foundation for Infantile Paralysis. For the first time in its eleven-year history it was necessary to conduct a Polio Epidemic Emergency Drive which although very helpful did not entirely meet current needs.

In its avowed purpose to lead, direct and unify the national fight against infantile paralysis the National Foundation undertook support of research and education, for in these areas lie the ultimate hope for eradication of poliomyelitis. These programs are not to be compromised in any way.

The greatest cost to the National Foundation, however, is payment for medical care to patients. It is urgent for all physicians to assist in the institution of measures which will reduce costs without prejudice to patients. The chief costs are for hospitalization. Many poliomyelitis patients are hospitalized when they can be cared for at home at a reduced cost.

Our experience in this year's epidemic which has spared virtually no part of the country suggests the following:

1. Abortive, nonparalytic and mildly paralytic poliomyelitis patients are being hospitalized in the mistaken idea that the stated period of isolation must be spent in the hospital.

2. Overly prolonged hospitalization is frequent. This is particularly true of the paralytic patient who has achieved maximum improvement from daily physical therapy. Home care with periodic office or clinic visits is then in order.

3. There still exists in some places a general attitude that poliomyelitis is a bizarre disease which only a few physicians can manage. This is not so. It is disturbing, for example, to find physicians leaning so heavily upon the guidance of physical therapists and nurses. The physician's assessment of the total patient is the best index in determining when a patient shall leave the hospital to receive home, office or clinic care.

4. Patients hospitalized on general ward services are not charged medical fees ordinarily. When patients are hospitalized on isolation wards for poliomyelitis, however, bills for medical fees are at times submitted. Payment is frequently made by the local chapters of the National Foundation whose treasuries are now generally depleted.

It is hoped that your readers will understand clearly how urgent is our need for coöperation from all practicing physicians in the matters mentioned above.

Sincerely yours,

HART E. VAN RIPER, M.D.
Medical Director, The National Foundation for Infantile Paralysis, Inc.

HAROLD RENAUD REED, M.D. (1890-1949)

Dr. Harold R. Reed, radiologist, and an Associate member of the District Medical Society, died unexpectedly, October 1, 1949, at his home at 2325 Belview Avenue, Cheverly, Md.

Dr. Reed was born in Scranton, Pennsylvania, December 17, 1890, the son of George G. and Mrs. Caroline M. Reed. He graduated from the Central High School in Scranton.

After graduating in medicine from the Jefferson Medical College in Philadelphia, he returned to Scranton to take his internship at the Scranton State Hospital, 1915-16. During World War I he was commissioned First Lieutenant in the Medical Corps of the U. S. Army and was stationed at Army camps in the South.

Dr. Reed served on the staff of the Philadelphia General Hospital as radiologist before he came to Washington in 1935 to accept the post of chief radiologist at Gallinger Municipal Hospital. He resigned from Gallinger only last year to become chief radiologist of Prince Georges County Hospital.

In 1938 Dr. Reed became affiliated with the Medical Society of the District of Columbia as an Associate member. He was a diplomate of the American Board of Radiology, a member of the Radiological Society of North America, the American College of Radiology, the American Medical Association, and the Prince Georges County Medical

Society. He was a member of the Cheverly Community Church.

Surviving are his wife, Mrs. Dorothy Frink Reed; two sons, Norman and John Reed; and a stepdaughter, Miss Alice Anderson, all residing at the family home in Cheverly; also a brother, DeWitt Reed, of Waverly, Penna., and a sister, Mrs. John Clause, of Clarks Summit, Penna.

Acute Pancreatitis—Selby

(Continued from page 628)

3. LEWISON, E.: Arch. Surg., 1940, **41**, 1008.
4. PUESTOW, C. B., LOOBY, W. E., AND RISLEY, T. S.: Am. J. Surg., 1946, **72**, 818.
5. DRAGSTEDT, L. R., HAYMOND, H. E., AND ELLIS, J. C.: Arch. Surg., 1934, **28**, 232.
6. VEGHELYI, P. V.: Am. J. Dis. Child., 1947, **74**, 45; abstracted, J.A.M.A., 1947, **135**, 534.
7. KOLLER, O.: Acta chir. Scandinav., 1947, **95**, 358; abstracted, J.A.M.A., 1947, **135**, 128.
8. BRAHDY, M. B., AND SCHEFFER, I. H.: Am. J. M. Sc., 1931, **181**, 255.
9. OPIE, E. L.: Bull. Johns Hopkins Hosp., 1901, **12**, 182.
10. RIENHOFF, W. F., JR., AND PICKRELL, K. L.: Arch. Surg., 1945, **51**, 205.
11. ARCHIBALD, E.: Surg., Gynec. & Obst., 1919, **28**, 529.
12. COFFEY, R. J.: M. Ann. District of Columbia, 1942, **11**, 131.
13. BOYDEN, E. A.: Surgery, 1937, **1**, 25.
14. RICH, A. R., AND DUFF, G. L.: Bull. Johns Hopkins Hosp., 1936, **58**, 212.
15. WEINER, H. A., AND TENNANT, R. A.: Am. J. M. Sc., 1938, **196**, 167.
16. MYERS, W. K., AND KEEFER, C. S.: New England J. Med., 1934, **210**, 1376.
17. GODFREY, N. G.: Brit. M. J., 1946, **1**, 203.
18. COX, H. T.: Brit. J. Surg., 1945, **33**, 182.
19. ELMAN, R.: Surg., Gynec. & Obst., 1933, **57**, 291.
20. MORTON J.: Surgery, 1945, **17**, 475.
21. JOHNSON, W. M., AND DAVIS, O. T.: Geriatrics, 1946, **1**, 125.
22. CANTAROW, A., AND TRUMPER, M.: Clinical Biochemistry, 4th ed. Philadelphia: Saunders, 1949, p. 484.
23. POLOWE, D.: Surg., Gynec. & Obst., 1946, **82**, 115; correction, 1946, **82**, 494.
24. CRANDALL, L. A., AND CHERRY, I. S.: Am. J. Physiol., 1931, **97**, 515.
25. BOCKUS, H. L.: Gastro-enterology. Philadelphia: Saunders, 1946, **3**, 776.
26. METHENY, D., ROBERTS, E. W., AND STRANAHAN, A.: Surg., Gynec. & Obst., 1944, **79**, 504.
27. COLE, W. H.: Internat. Abstr. Surg., 1938, **67**, 31.
28. PROBSTEIN, J. G., GRAY, S. H., SACHAR, L. A., AND RINDSKOFF, W. J.: Arch. Surg., 1949, **59**, 189.

29. LAMPSON, R. S.: *Ann. Surg.*, 1942, 116, 367.
30. PAXTON, J. R., AND PAYNE, H. J.: *Surg., Gynec. & Obst.*, 1948, 86, 69.
31. MACGUIRE, C. J., AND CONTE, A. J.: *Ann. Surg.*, 1948, 127, 557.
32. CHISHOLM, T. C., AND SEIBEL, R. E.: *Surg., Gynec. & Obst.*, 1947, 85, 794.

Behind the Record—Observer

(Continued from page 653)

have there been great advances in medical science, but application of the knowledge gained has become involved in controversial social issues. Important facts bearing on this controversy have not yet been revealed in their entirety. In the interest of all, they should not be withheld.

There are a number of physicians living who could, if they would, do much to put the record straight where medicine is concerned. If these

comments serve to stir even one of them to do so they will have been worth writing.

T. W.

SMA Concludes Successful Meeting

(Continued from page 661)

Dr. Curtice Rosser, of Dallas, Texas, is President-elect of the SMA. Dr. Hunter was elected to the Board of Trustees for a term of five years. Dr. Kain, Councilor-elect from the District of Columbia, was appointed Acting Councilor in place of Dr. McNitt for the transaction of Council business. Dr. Kain, who is Chairman of Women Physicians of SMA, presided at their annual meeting and dinner on Tuesday evening, November 15, at the Netherland Plaza.

Dr. and Mrs. Hunter gave a farewell dinner in honor of the Local Committee and newly elected officers of the Association on Thursday evening, November 17, which climaxed a most successful meeting. Three of the Hunter daughters, Mrs. Richard H. Fischer and the Misses Peggy and Mary Ellen Hunter, accompanied their parents to the convention and were present at the social events.

Our Living Past Presidents—Macatee

(Continued from page 655)

Much has been left out of this sketch, such as his service during two wars. He served in the Navy during the first World War and on the Appeal Board of Selective Service from 1943 to 1946. For his outstanding medical contribution to the conduct of World War II he received the Congressional Certificate of Merit.

Would that the writer possessed Dr. Macatee's ability to describe adequately the character and abilities of one who might well serve as a living example for all of us.

J. RUSSELL VERBRYCKE, M.D.

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RECENT ADVANCES IN CANCER

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THE MEDICAL SERVICE PROGRAM OF THE DISTRICT OF COLUMBIA DIVISION OF THE AMERICAN CANCER SOCIETY*

PETER D. COMANDURAS, M.D.

Medical Director, District of Columbia Division of the American Cancer Society

The District of Columbia Division of the American Cancer Society, following the example set by its parent organization, has evolved a three-pronged attack in its battle against cancer. This attack involves (1) the aid of research, i.e., the financial support and active encouragement in every way possible of all forms and types of research in local medical institutions and hospitals, (2) the establishment of medical service, so that cancer may be found in its earlier stages and, when found, continuation of such medical services and treatment so that prompt alleviation from suffering and, if possible, cure may be provided for its victims, and (3) the promulgation and dispersal of all knowledge concerning the disease in the form of education, not only for the public but also for practicing physicians. In these three ways, by means of RESEARCH, SERVICE AND EDUCATION, and by the continuance and maintenance of these modalities, it is hoped that sufficient inroads may be made against the disease so that the dreadful national mortality of

180,000 people annually may be lowered considerably.

MEDICAL SERVICE PROGRAM

A little over six months ago the Executive Committee of the District of Columbia Division of the American Cancer Society saw fit to establish the office of Medical Director in order to carry out more effectively its medical service program. At that time there existed 1 cancer detection center in Washington which was operating 3 half-days per week at Garfield Hospital. Negotiations were under way for the establishment of another at Doctors Hospital. This was accomplished in a short period of time. The Doctors' Cancer Detection Center has been operating now for the past 6 months, for 3 half-day sessions per week, with a patient load of about 120 per month. The Cancer Detection Center at Gallinger Hospital, for the examination of indigent patients, was also begun at this time. In order to carry out the educational aspects of the cancer detection centers, it was felt that such centers should also be established in the hospitals of George Washington and

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Georgetown Universities. In this manner, it is hoped that they would provide excellent educational material for the medical students and younger physicians who would be able to take part and observe the practical aspects of examinations for cancer. As a result of the active coöperation and sympathetic understanding of the officials of these two University hospitals, the District of Columbia Division of the American Cancer Society was able to help in the organization and opening of cancer detection centers at both George Washington University Hospital and Georgetown University Hospital. Thus, at the present time there are in operation in Washington, D. C., 5 cancer detection centers, 1 each at George Washington University Hospital and Georgetown University Hospital, and the others at Doctors, Garfield and Gallinger Hospitals. As a result of funds received from the Federal Government, Howard University has recently opened a Tumor Clinic at Freedmen's Hospital, which includes a cancer detection center as one of its functions. Thus, in all 3 University hospitals in Washington, a cancer detection center exists where medical students may observe the basic principles of cancer examinations. The Cancer Detection Center at Garfield Hospital, which is the oldest, has recently enlarged its facilities to operate 3 full days per week and to handle close to 400 patients per month.

CANCER DETECTION CENTERS

The cancer detection centers in Washington are now operating from 1 to 3 full days per week. Almost 1,000 patients per month are being examined by the physicians in these centers. The cost of maintaining them is almost \$100,000 per year. In the past, deficits which have been incurred by the centers for their maintenance have been provided by supplementary funds from the American Cancer Society.

The primary purpose of the cancer detection centers is to examine well persons who have no symptoms of cancer. Their constant endeavor

is to find cancer in its earliest stages when it is most amenable to cure. These centers have been set up under rules and regulations established by the American College of Surgeons. They must meet these requirements before they can undertake to operate as recognized centers. In addition to this, they must be approved and periodically undergo inspection by the Cancer Control Committee of the Medical Society of the District of Columbia. Their staff of examining physicians is chosen by the respective hospital staff members. The director of these cancer detection centers is usually a member of a specialty board in medicine or surgery. It was the custom in these centers to accept a contribution of \$10 for each examination. These contributions were sufficient to defray the expense of the centers only in part. In order to make up for their operating deficits the American Cancer Society had to provide supplementary funds throughout the year. Recently these contributions were increased to \$15. Realizing that the previous sum did not even hope to cover the actual expense per examination, the public was not averse to this increase which was requested by the detection centers. By so doing, it is felt that the Cancer Detection Centers may be able to operate without encountering any more deficits and thus help save the American Cancer Society thousands of dollars a year. It is appreciated, however, that these funds previously given to the centers by the American Cancer Society and now freed will undoubtedly be diverted to other agencies which need financial assistance urgently, particularly in the fields of cancer research and in the care and treatment of patients with cancer.

CANCER DIAGNOSTIC CLINICS

For individuals who suspect that they may have symptoms of cancer, or who may be in need of treatment for cancer that is known to exist, the three local medical schools of George Washington, Georgetown and Howard have established complete diagnostic and treatment cancer

clinics, which meet the rigid requirements of the American College of Surgeons. The Warwick Memorial Cancer Clinic, which was formerly located at Garfield Hospital, has now associated itself with the George Washington University Medical School and Hospital. The combined facilities of the two institutions are now being utilized in cancer education, diagnosis, research and treatment, under the direction of Dr. Calvin T. Klopp, Cancer Coördinator. Despite the loss of the Warwick Clinic, Garfield Memorial Hospital has undertaken the establishment of a Cancer Diagnostic Clinic, staffed by competent specialists in the various fields of medicine and surgery, under the direction of Dr. Ralph M. Caulk. The Tumor Clinic at Georgetown University Hospital has been in operation for the past few years, under the guidance of and control of Dr. Murray M. Copeland, Professor of Oncology, and Dr. Charles M. Geschickter, Professor of Pathology. Howard University Medical School has established and is operating a Tumor Clinic at Freedmen's Hospital during the past few months with funds received from the U. S. Public Health Service. Thus, there are now in existence in Washington 4 cancer clinics possessing excellent facilities for the diagnosis and treatment of suspected or actual cancer cases. The District of Columbia Division of the American Cancer Society has provided in the past, and intends to continue to do so in the future, considerable financial assistance to these institutions in order that they may carry on their manifold activities against cancer.

CARE OF TERMINAL CANCER CASES

In addition to the cancer detection centers and cancer diagnostic clinics, the Medical Service of the District of Columbia Division of the American Cancer Society has undertaken to provide funds for the care of terminal cancer cases. One of the most urgent and most neglected needs at the present time is the provision of hospital beds for such patients. A beginning is being made

now for the opening of hospital beds which are to be used exclusively for the care and treatment of patients with cancer. The United States Public Health Service and the Warwick Memorial Clinic have both undertaken to set aside hospital beds for the care of cancer patients at George Washington University Hospital in the near future.

The District of Columbia Division of the American Cancer Society, realizing the lack of hospital beds for the care of patients with advanced cancer, has coöperated with the Washington Home for Incurables and aided in setting aside a moderate number of beds for the exclusive care of such patients. This association of the Washington Home for Incurables and the American Cancer Society for the care of these people has been carried on in a mutually satisfactory and agreeable manner for the past several months. Recently a grant of \$5,000 has been given to the Washington Home for Incurables for the coming year to carry out their work in the care of patients with cancer in the terminal stage.

In addition to the Washington Home for Incurables, the District of Columbia Division of the American Cancer Society has entered into a financial agreement with the Instructive Visiting Nurse Society, whereby supplementary funds will be provided to help in bringing the visiting nurse to the home of these cancer patients for care and treatment. The Instructive Visiting Nurse Society is making hundreds of calls to cancer patients in the District of Columbia every month, bringing comfort and surcease from suffering to these unfortunate victims. We have felt that it is imperative that the fine work of this Society be allowed to continue and to reach as many of these people as possible. In the past the American Cancer Society had entered into a financial agreement with the Instructive Visiting Nurse Society whereby any monthly deficit was made up by the American Cancer Society. Beginning in September, 1948, how-

ever, a definite financial sum close to \$5,000 was advanced to the I.V.N.S. for the continuance of their excellent work during the coming year.

Another Washington institution which has received funds from the American Cancer Society in order to maintain its cancer service has been the Hospital Service Agency. Last year a sum of \$5,000 was allotted to this Agency by the Executive Committee for the application of X-ray and radium therapy to indigent patients with cancer in the various hospitals in Washington. This year a substantially larger contribution has been requested by the Hospital Service Agency for the continuation and expansion of this work.

MEDICAL EDUCATION

The original major objective of the American Cancer Society, our parent organization, and one which continues to occupy a large portion of our efforts, is education, and particularly medical education. During the coming year the District of Columbia Division of the American Cancer Society has promulgated a program which it is hoped will reach a large number of practicing physicians in the District. At the Scientific Exhibit of the 19th Annual Scientific Assembly of the Medical Society of the District of Columbia, the American Cancer Society financially supported and sponsored several scientific exhibits on cancer produced by local physicians and institutions. An exhibit on radioisotopes by Georgetown and another on diagnosis of cancer by cytologic examination of cells from various parts of the body by the Warwick Memorial Clinic were two of the outstanding exhibits. The American Cancer Society also had its own scientific exhibit designating the importance of teamwork in cancer diagnosis.

Plans have been set in operation for the printing of a monthly *Cancer Bulletin* written by outstanding scientific workers in cancer in the Dis-

trict to be inserted in the official publication of the Medical Society of the District of Columbia, the *Medical Annals of the District of Columbia*. This will bring to each and every practicing physician in the District and others throughout the country the latest information concerning cancer.

Another project which will come into fruition early next year is a postgraduate course in cancer to be given under the auspices of the Postgraduate Medical Department of the George Washington University Hospital. This postgraduate course in cancer will be open to local physicians as well as physicians from other sections of the country. The District of Columbia Division of the American Cancer Society has undertaken to pay the tuition fee for 10 members of the District Medical Society who desire to take this course. The course will last 1 week with daily lectures from 9 a.m. to 5 p.m. and will be under the direction of Dr. Klopp. Thus, the District of Columbia American Cancer Society and the George Washington University School of Medicine will join forces to bring to the physicians of this City a postgraduate course in cancer which will draw as its lecturers some of the outstanding cancer specialists in the country.

SUMMARY

In these and varied ways in the fields of medical service and medical education, the District of Columbia Division of the American Cancer Society is constantly maintaining and upholding its pledge and its duty to the public and to the profession of the District of Columbia, to bring light and knowledge on the dread subject of cancer, so that the disease may be attacked, controlled, and held at bay, until that day when the overwhelming power of research may be brought to bear for the ultimate destruction and annihilation of this scourge of mankind—cancer.

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RECENT ADVANCES IN CANCER

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CANCER OF THE GASTROINTESTINAL TRACT

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Since 35 per cent of all cancer occurs in the digestive tract between the esophagus and anus, a thorough understanding and familiarity with recent advances in the diagnosis and treatment of gastrointestinal malignancies is extremely important.

Being an inaccessible hollow tube, permitting of easy distensibility, the gastrointestinal tract is slow to serve alarm of involvement by a cancer. For this reason less conspicuous symptoms are commonly overlooked by both the patient and physician with the result that precious months of surgical operability are wasted. This is evidenced by the fact that of 100 cases of gastrointestinal cancer the growth will at the time of recognition be unsuitable for curative surgical extirpation in approximately 60. This picture, though dark, has served to stimulate progress in the earlier recognition of these lesions.

CANCER OF THE ESOPHAGUS AND GASTRIC CARDIA

Formerly abandoned to palliation and a slow death, victims of cancer at these sites, constituting 10 per cent of gastrointestinal cancer, may today enjoy the benefit of a resection.

Through the efforts of Sweet, Pack, Clagett and others during the past 5 years, curative surgical attack via a transthoracic or combined thoracico-abdominal approach now permits radical removal of the gastric cardia and large segments of the thoracic esophagus, with reestablishment of esophagogastric continuity by elevating the stomach into the thorax as high as the arch of the aorta. The associated operative mortality has been reduced to a reasonable figure, Payne and Clagett¹ reporting 13 per cent. Although too early to analyze the late results, Sweet states "that there will be enough cases of 3- to 5-year survival to justify the use of the operation." Payne and Clagett reported 19 3- to 60-month survivors in a series of 115 resections.

Similar steps of progress have been effected in the handling of carcinoma of the cervical esophagus. These squamous-cell lesions may, in competent hands, be resected with the reconstruction of the esophageal defect by the Wookey skin-lined tube.² Watson and Pool³ report 3 7- to 10-year survivals.

In spite of these surgical advances, the fundamental problem in esophageal and gastric cardia lesions is earlier diagnosis. Because of the high degree of malignancy and the obscurity of symp-

toms associated with cancer at these sites, all too frequently the diagnosis is established too late. Dysphagia and substernal pain in patients beyond 45 years of age demand serious investigation. Roentgenologic study of the esophagus with the aid of a barium swallow plus esophagoscopy are the all-important diagnostic aids. As suggested by Pack,⁴ an extremely important step in the earlier identification of these lesions would be accomplished by more common training in the use of the esophagoscope.

CANCER OF THE STOMACH

In spite of the fact that gastric cancer, the commonest of all malignancies, carries with it an extremely poor chance of cure, the previously prevalent attitude of hopelessness no longer is warranted. Some progress has resulted from extending the scope of surgical procedures. The resectability rate, according to Pack and McNeer,⁵ has increased from 5.7 per cent in 1930 to 48.1 per cent in 1942 with a decrease in operative mortality from 62.5 per cent to 21.7 per cent during the same period. However, the 5-year cure rate remains unimpressive (table 1).

TABLE 1
Cancer of the Stomach

	TOTAL CASES		RESECTABLE CASES	
	Number	Per cent of 5-year cures	Number	Per cent of 5-year cures
Pack & McNeer ⁵	795	3.4	75	34.7
H. G. Bell ¹⁵	540	2.5	186	7.5
Walters, Gray & Priestley.....	10,890	6.2	2,777	24.0
Welch & Allen ¹⁶	375	6.5		

Hope of improving the prospect of the patient with a cancer of the stomach centers on 3 considerations: (1) earlier diagnosis, (2) recognition of precursors of gastric cancer, and (3) a proper concept of the nature of gastric ulcer.

Earlier diagnosis.—Roentgenologic examination of the stomach with the barium meal is a highly satisfactory and accurate diagnostic

method in competent hands. Gastroscopic examination offers additional and often essential information. Though an unattainable ideal, X-ray examination of the stomach in all persons over the age of 50 years would undoubtedly bring to light many unsuspected and surgically curable lesions. The only logical compromise with such mass study is the routine use of X-ray examination of the stomach in all individuals over 45 years who complain of even the mildest and most fleeting gastric symptoms. Only by this means can the early and favorable lesions be identified and resected, as exemplified by the following case:



FIG. 1. Case 1. Operative specimen of adenocarcinoma of the stomach.

Case 1.—Mrs. A. M., 57 years old, consulted her private physician because of vague epigastric distress and anorexia of 1 month's duration. A weight loss of 5 pounds had occurred. Physical examination was essentially negative. A mild hypochromic anemia was demonstrated. On gastric analysis no free hydrochloric acid was found after histamine stimulation. Roentgenologic examination of the stomach revealed a small annular filling defect in the prepyloric area. Gastric resection was carried out, with removal of an ulcerating carcinoma of the pylorus (fig. 1). No gross evidence of extension of the cancer to the liver or regional nodes was present. The pathologic diagnosis of adenocarcinoma of the stomach grade 3 was given. Her convalescence was uneventful.

In such early lesions the prospect of a 5-year survival is considerably greater than the over-

all 6 to 7 per cent cure rate in gastric carcinoma. At the Mayo Clinic⁶ 28.9 per cent of patients with favorable lesions survived a 5-year period after resection.

In its early stages cancer of the stomach causes few if any typical symptoms. Simple indigestion in middle or late life is the commonest. Many pioneer workers in this field, including W. J. Mayo, Carman, and Willkie, failed to recognize their own gastric cancer until late.⁶ More often than not, ulcer-like symptoms arising after the age of 45 years are, in fact, due to an ulcerating carcinoma. When symptoms such as hematemesis, unexplained anemia, vomiting, weight and strength loss develop, too often the diagnosis is made too late.

Not all gastric cancers occur after the age of 45 years. Pack and McNeer⁷ collected from the literature 501 cases in patients under 31 years, and they estimate that 5 per cent of all gastric carcinomas develop between 30 and 45 years.

In spite of one or two negative roentgenologic studies of the stomach, persistent gastric symptoms require repeated use of X-ray and gastroscopic examinations. In Anglem's series⁸ the first X-ray examination failed to establish the diagnosis in 24 per cent of cases.

Case 2.—Mr. W. J. P., 56 years old, was admitted to Georgetown University Hospital for study of an unexplained anemia. The hemoglobin was 5.5 grams; the red blood cells numbered 2,900,000 and the white blood cells 9,200 per cu. mm. of blood. One year before he had consulted his private physician because of burning epigastric distress, weakness and nervousness. Because of the development of hypochromic anemia, refractory to therapy, a tentative diagnosis of gastric carcinoma was entertained. However, roentgenologic examination of the stomach on 3 occasions and 1 gastroscopic examination failed to demonstrate a lesion of the stomach. Histamine achlorhydria was present. On surgical consultation exploration of the stomach was advised. An extensive ulcero-invasive carcinoma involving the proximal two thirds of the stomach with widespread involvement of the liver and regional lymph nodes was found.

The recent work of Graham et al⁹ on the cytologic examination of gastric juice may prove

to be a valuable adjunct in establishing the diagnosis in such cases.

Precursors of gastric cancer.—An obvious opportunity in combating gastric cancer is the identification of any premalignant state of the stomach. Strenuous efforts in this direction are now being carried out with some fruitful results.

1. Achlorhydria. Evidence is being accumulated to indicate that the incidence of gastric cancer is increased in individuals over 45 with achlorhydria. Kaplan and Rigler¹⁰ report a 12.3 per cent incidence of gastric carcinoma in those dying of pernicious anemia. This represents 3 times the expected incidence as based on age. Bourne¹¹ in a study of 15 symptom-free cases of pernicious anemia identified gastric cancer in 3 cases.

In studying 464 persons over 50 years of age with histamine-resistant achlorhydria, Wangenstein⁶ found 3 previously undetected cancers of the stomach. Although achlorhydria is uniformly found in polypoid carcinoma, its absence should not lull one into a false sense of security. In 40 per cent of ulceroinvasive lesions free hydrochloric acid is present.

2. Gastric Polyps. Although complete agreement regarding the precancerous potentiality of gastric polyps is lacking, Mallory¹² has observed the occurrence of noninvasive 'carcinoma in situ' in these lesions. In the above-mentioned study of Wangenstein gastric polyps were identified in 15 cases.

3. Atrophic Gastritis. Both the diffuse form, such as seen in pernicious anemia, and the localized type have been strongly suspected as a breeding ground for cancer. Berry and Cole¹³ followed a series of 36 cases gastroscopically for a period of 8 years, and in only 1 instance did carcinoma develop.

These conditions are to be viewed with strong suspicion and should be subjected to periodic diagnostic studies in individuals over the age of 45 years. At the present time a conservative attitude toward diffuse gastric polyposis is fol-

lowed by the majority. However, single or localized gastric polyps should be removed.

Relation of gastric ulcer to gastric cancer.—It is a regrettable fact that our most promising approach to gastric cancer, namely, the removal of all gastric ulcers, has been jeopardized by confusing statistical duels regarding the merits of medical versus surgical treatment in these cases. Two pertinent facts stand out conspicuously: (1) 10 to 15 per cent of gastric ulcers, believed to be benign by the conventional diagnostic methods, are malignant, and (2) eliminating the higher lesser curvature lesions which require

ulcer niche 1 cm. in diameter in the prepyloric region on the lesser curvature. After being placed on an ulcer régime his symptoms promptly subsided. On reëxamination of his stomach by means of X-rays 6 weeks later the niche had disappeared. He was then discharged with instructions to return in 2 months for further study. He failed to return until 6 months later, at which time his epigastric pain had recurred. Following this admission the roentgenographic examination revealed a larger niche at the exact location of the previous ulcer. Surgical exploration was advised. An ulcerative lesion of the pyloric region with extensive lymphadenopathy in the gastrohepatic omentum was resected (fig. 2). Pathologic examination revealed adenocarcinoma grade 4.

Such occurrences are not rarities and serve to strengthen the conviction that the microscope is the only dependable guide as to the nature of an ulcerated gastric lesion. Prepyloric ulcerations are particularly dangerous, the work of Sampson and Sosman¹⁴ revealing that cancerous ulcers outnumber the benign in this region by 3 to 1. And, as pointed out by Bell,¹⁵ it is in this group that the bulk of the 5-year survivors are found. Allen and Welch¹⁶ have shown that the percentage of 5-year survivors following resection for a cancer, presumed to be an ulcer, is double the prevailing rate.

(To be concluded in a subsequent article)

BIBLIOGRAPHY

FIG. 2. Case 3. Operative specimen of adenocarcinoma of the stomach.

total gastrectomy and which are rarely malignant, adequate resection is associated with an operative mortality not in excess of 5 per cent. That malignant change does occur in an originally benign gastric ulcer has been observed repeatedly. Of more frequent occurrence, however, is the masquerade of a slowly growing malignant ulcer as a benign lesion, even to the point of responding to medical therapy.

Case 3.—Mr. F. K., 51 years old, was admitted to Georgetown University Hospital because of ulcer-like, epigastric pain with typical food relationship. Physical examination revealed nothing pertinent. Following histamine stimulation the aspirated gastric contents contained 10° free hydrochloric acid. X-ray examination of the stomach demonstrated the presence of an

1. PAYNE, J. H., AND CLAGETT, O. T.: *Surgery*, 1948, **23**, 912.
2. SWEET, R. H.: *Ibid.*, 1948, **23**, 952.
3. WATSON, W. L., AND POOL, J. R.: *Ibid.*, 1948, **23**, 893.
4. PACK, G. T.: *Ibid.*, 1948, **23**, 867.
5. PACK, G. T., AND MCNEER, G.: *Ibid.*, 1948, **24**, 769.
6. WANGENSTEEN, O. H.: *J. A. M. A.*, 1947, **134**, 1161.
7. PACK, G. T., AND MCNEER, G.: *Surg., Gynec. & Obst.*, 1948, **86**, 511.
8. ANGLE, T. J.: *New England J. Med.*, 1946, **235**, 322.
9. GRAHAM, R. M., ULFELDER, H., AND GREEN, T. H.: *Surg., Gynec. & Obst.*, 1948, **86**, 257.
10. KAPLAN, H. S., AND RIGLER, L. G.: *Am. J. M. Sc.*, 1945, **209**, 339.
11. BOURNE, W. A.: *Brit. M. J.*, 1948, **1**, 92.
12. MALLORY, T. B.: *Arch. Path.*, 1940, **30**, 348.
13. BERRY, L. H., AND COLE, T. J.: *J. A. M. A.*, 1948, **138**, 485.
14. SAMPSON, D. A., AND SOSMAN, M. C.: *Am. J. Roentgenol.*, 1939, **42**, 797.
15. BELL, H. G.: *Surgery*, 1948, **23**, 351.
16. ALLEN, A. W., AND WELCH, C. E.: *Ann. Surg.*, 1941, **114**, 498.

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CARCINOMA OF THE THYROID GLAND*

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Carcinoma of the thyroid is one of the malignant neoplasms which offer a good prognosis. Its location favors early observation, it grows slowly, it is readily accessible to examination, and it is amenable to radical surgery.

Most investigators agree that a large proportion of thyroid carcinomas arise in solitary nodules which are clinically diagnosed as thyroid adenomas and that a smaller number occur in nodular goiters. It has also been shown^{1,2} that at least 7 per cent of solitary thyroid nodules harbor a carcinoma. Recently there have been several reports of carcinoma occurring incidentally in exophthalmic goiter.³

Carcinoma of the thyroid gland, like most other malignant tumors, occurs most frequently in the fifth and sixth decades. However, it is the most common malignant tumor of the neck in children⁴ and is not uncommon in young adults. It is of interest that when encountered in the younger age group thyroid cancer is usually of the less malignant type. Approximately 65 per cent of all cases reported have occurred in women.

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There has been a general lack of agreement among pathologists regarding the classification of carcinoma of the thyroid. This is due, principally, to differences in histologic interpretation and is reflected in the wide variances in nomenclature.

Many classifications include the terms "scirrhous" (hard), "simplex" (simple), and the highly contradictory term "malignant adenoma." Efforts are currently being made to arrive at a generally accepted uniform nomenclature and to discard meaningless terms.

However, with the wide variety of histologic types found in thyroid carcinoma no classification will be completely satisfactory to either the clinician or the pathologist. The following classification has the advantage of being simple, complete, and practical.

Type	Percentage of occurrence
1. Metastasizing struma.....	3
2. Papillary adenocarcinoma.....	45
3. Hurthle cell carcinoma.....	5
4. Solid and alveolar adenocarcinoma.....	40
5. Spindle and giant cell carcinoma.....	5
6. Anaplastic carcinoma.....	2

These types are arranged in order of increasing

malignancy. The first two categories progress very slowly and are well differentiated. The last two groups are undifferentiated and show rapid growth and early widespread metastasis. Metastasizing struma is classed with carcinoma because the tissue can metastasize and may cause death in spite of the perfectly benign histologic appearance. Omitted from this classification are the extremely rare sarcomas of the thyroid, and the unusual tumor sometimes labeled "squamous carcinoma." The latter is either an extension of a true squamous carcinoma from the remnants of the thyroglossal duct or is the result of squamous metaplasia in adenocarcinoma.

Few carcinomas of the thyroid are histologically uniform throughout; admixtures of types are the rule and make for diversity of interpretation by pathologists.

An accurate pathologic diagnosis can be made only after a thorough study of multiple sections of the excised tissue. Consideration is given to the regularity and orderly arrangement of the pattern, to the degree of cellular differentiation, and to the presence of mitotic figures. Blood vessel invasion alone is not a reliable criterion for diagnosis.^{5, 6}

The successful treatment of thyroid carcinoma has been enormously handicapped by the persistence of the term "lateral aberrant thyroid." This term has been used since 1906 to designate nodules of thyroid carcinoma in the lateral neck areas which were thought to occur in congenitally aberrant thyroid tissue, but actually were metastases of thyroid cancer to lateral cervical nodes. This misinterpretation is understandable. A very small, slowly growing primary lesion in the thyroid gland was overlooked as was the fact that the metastatic carcinoma usually completely replaces the lymphoid tissue in the nodes, giving the appearance of a nodule of encapsulated thyroid tissue. This fallacious concept became so universally accepted that 3 of 4 recent textbooks of pathology^{7, 8} still describe "lateral aberrant thyroid carcinoma."

Considerable controversy occurred over the intervening years, and only recently have surgeons and pathologists altered their views and begun to treat the disease as a primary carcinoma of the thyroid gland with metastases to the cervical lymph nodes.^{9, 10, 11}

After a hemithyroidectomy has been performed on a patient having lymph node metastases from a thyroid carcinoma, a thorough search will invariably reveal a primary carcinoma. It is nearly always located in the homolateral lobe but may be in the pyramidal lobe, the isthmus, or rarely in the medial portion of the contralateral lobe. The postero-medial aspect of the lobe is the most frequent location of the primary focus. It may measure no more than 1 or 2 millimeters and is frequently soft and impossible to palpate. The term "lateral aberrant thyroid" should be discarded, and any thyroid tissue found in the lateral portion of the neck should be considered as metastatic carcinoma from the thyroid gland.

In order to successfully treat carcinoma in any organ of the body it is necessary to eradicate all of the diseased tissue. In carcinoma of the thyroid gland surgery is the method of choice, but the complete removal of all the carcinoma can only be accomplished by a block dissection of the neck and a hemithyroidectomy done in continuity. This includes the removal of the sternomastoid and the strap muscles as well as the internal jugular vein and the intervening soft tissue from the clavicle to the mandible. Since the lymphatic drainage of the thyroid is toward the superficial and deep cervical chains of lymph nodes and since carcinoma metastasizes via the lymphatics, any lesser procedure than hemithyroidectomy and radical neck dissection is inviting local and distant metastases. It is not unusual to find as many as 25 microscopically involved lymph nodes along the course of the internal jugular vein many of which are less than 1 cm. in diameter and could not possibly be palpated by the surgeon at time of operation. Considering the relatively high percentage of

carcinoma found in solitary adenomas and nodular goiters together with the very low mortality rate from surgical extirpation, physicians should urge all patients having nodules in the thyroid gland to submit to early surgical removal. As is true for all types of cancer, the first operative procedure offers the best and possibly the only chance for a cure.

The use of radium or X-rays is not a dependable method of therapy, since it is impossible to deliver a cancerocidal dose of irradiation to the entire neck and thyroid without producing irreparable damage.

Because of the very slow growth of certain types of thyroid carcinoma, the usual 5-year follow-up period is of no value as an index of the efficacy of therapy. Until accurate 15- or 20-year follow-up studies are made on a large series of patients reliable statistics on the subject will not be available.

The discovery and use of the radioactive isotopes has opened many new methods of investigation and therapy: I^{131} (radioactive iodine), so named because of its atomic weight, is the isotope most frequently used for thyroid tissue. It emits beta and gamma rays which cause ionization localized chiefly within a radius of a few millimeters around each particle. Radioactive iodine in sufficient dosage produces irradiation reaction within the thyroid tissue similar to that from X-ray or radium irradiation with less tendency to damage the surrounding normal tissues. Much of the iodine is excreted in the urine and feces in decreasing amounts until almost 85 per cent has been lost.^{12, 13} The radioactive iodine will be picked up by most thyroid tissue, whether it be in the gland itself or in metastases, if it has an orderly arrangement of alveoli containing colloid. The pickup is best in a histologically normal or hyperactive thyroid, and least in a highly undifferentiated anaplastic thyroid carcinoma. Thus, carcinomas falling into group 1 are most likely to pick up radioactive iodine, and certain cases in group 2 and 4 may pick up the isotope; the re-

maining cases are not apt to absorb an appreciable amount. It is estimated that 15 per cent of all cases of thyroid carcinoma will show some pickup of radioactive iodine.¹⁴

The most useful methods of determining radioactive iodine pickup are by the use of the Geiger-Müller counter or by the preparation of radioautographs. Pickup can be determined externally by the use of the Geiger-Müller counter following ingestion of even a small "tracer" dose of the isotope. The counter is passed over the body and registers only over areas where radioactive iodine has been concentrated.¹⁵ By this method metastatic carcinoma may be located in those cases which will pick up the substance. The histologic elements responsible for the pickup can be determined by the use of radioautographs as described by Marinelli et al.¹⁶ When thin microtome sections are placed directly against a roentgen film for as long as 3 weeks radiation from the I^{131} will fog the film. Adjacent sections are cut and stained with hematoxylin and eosin and compared microscopically with the radiographs. The areas seen to pick up radioactive iodine are usually found to be composed of the alveoli containing colloid.

A small number of inoperable cases have been treated with radioactive iodine with apparent success; however, insufficient time has elapsed for complete evaluation of this method. In patients having numerous metastases scattered over the body from a thyroid carcinoma, radioactive iodine may at times be the treatment of choice. It may also be used when surgery is refused. When the isotope is to be used therapeutically it is necessary to destroy or remove all normal thyroid tissue first so that the normal cells will not utilize the iodine to the exclusion of metastases. Williams¹⁷ and Chapman¹⁸ and others have also treated Graves' disease in this manner, but at the present time it appears that the method should be reserved for inoperable cases who show sensitivity to iodine as well as thiouracil, and in the rare cases of recurrent hyperthyroidism.

SUMMARY

1. Early surgical removal of solitary nodules and nodular goiters constitutes the best possible prophylactic treatment of carcinoma of the thyroid.

2. The superficial location of the thyroid gland allows early observation.

3. The best prognosis is offered by hemithyroidectomy or total thyroidectomy and radical neck dissection of the involved side, done in continuity.

4. The concept "lateral aberrant thyroid" is discussed.

5. The use of radioactive iodine is discussed.

BIBLIOGRAPHY

1. SOLEY, M. H., LINDSAY, S., AND DAILEY, M. E.: *West. J. Surg.*, 1948, **56**, 96.
2. COLE, W. H., SLAUGHTER, D. P., AND ROSSITER, L. J.: *J.A.M.A.*, 1945, **127**, 883.
3. Report on Proceedings of American Goiter Association. Madison, Wis.: Jackson Clinic Bulletin, 1948, **10**, 135.
4. MARTIN, H.: *J.A.M.A.*, 1948, **137**, 1306.
5. BRODERS, A. C.: *West. J. Surg.*, 1940, **48**, 620.
6. WARREN, S.: *Arch. Path.*, 1931, **11**, 255.
7. BOYD, W.: *Textbook of Pathology*. Philadelphia: Lea, 1947, p. 777; FOOT, N. C.: *Pathology in Surgery*. Philadelphia: Lippincott, 1945, p. 328; BELL, E. T.: *Textbook of Pathology*. Philadelphia: Lippincott, 1947, p. 790.
8. ANDERSON, W. A. D.: *Pathology*. St. Louis: Mosby, 1948, p. 1072.
9. KING, W. L. M., AND PEMBERTON, J. DEJ.: *Surg., Gynec. & Obst.*, 1942, **74**, 991.
10. CRILE, G., JR.: *Ibid.*, 1947, **85**, 757.
11. WARREN, S., AND FELDMAN, J. D.: *Ibid.*, 1949, **85**, 757.
12. FRANTZ, V. K., BALL, R. P., KESTON, A. S., AND PALMER, W. W.: *Ann. Surg.*, 1944, **119**, 668.
13. HAMILTON, J. G., AND SOLEY, M. H.: *Am. J. Physiol.*, 1939, **127**, 557.
14. FOOTE, F. W., JR.: *Proc. New York State Assoc. Pub. Health Lab.*, 1946, **26**, 58.
15. COPELAND, M. M., AND GESCHICKTER, C. F.: *Cancer Bull.*, M. Ann. District of Columbia, 1948, **1**, 1.
16. MARINELLI, A. D., FOOTE, F. W., JR., HILL, R. F., AND HOCKER, A. F.: *Am. J. Roentgenol.*, 1947, **58**, 17.
17. WILLIAMS, R. H.: *West. J. Surg.*, 1948, **56**, 72.
18. CHAPMAN, E. M.: *Ibid.*, 1948, **56**, 47.

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CANCER OF THE ORAL CAVITY*

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Definition.—In this discussion, cancer of the oral cavity includes all neoplasms arising above the clavicle in the areas usually classified as upper esophagus, hypopharynx, larynx, oropharynx, nasopharynx, tonsil, tongue, buccal mucosa, lips, nasal sinuses, hard and soft palate, gingival ridge, and salivary glands. This region is the site of approximately 4 per cent of all cancer in the male and about 0.4 per cent of all cancer in the female. Subdivisions of this region are considered as within the domain of many specialties and subspecialties despite the fact that the cancers of the oral cavity tend to follow one general pattern and to have many common problems. Since it is impossible to establish a useful organizational subdivision of these cancers, no attempt will be made to handle them in relation to specialty boards, but merely by general region.

Detection.—The major portion of the head and neck areas are readily accessible to inspection by direct vision or to palpation with the examining finger. Additional areas are readily visible simply by use of a laryngeal mirror and

head light or reflector. The examination of these areas by the use of nasal and aural speculae and laryngeal mirror under adequate lighting, and by the use of finger palpation should be a routine part of any complete physical examination as given by any physician. It is certainly not an examination limited to any specialty group or requiring a complicated technic. Only if this method of examination is employed by all practicing physicians will many more early cancers of the oral cavity be detected. Discovery of the cancer in the absence of any subjective symptoms constitutes true detection.

The conduct of such an examination is outlined in standard textbooks of physical diagnosis and of otolaryngology. The basis of the examination is merely careful inspection and palpation of all areas involved. The use of the laryngeal mirror is not difficult and can be learned by any physician after a few hours' practice. It is admitted that each physician will not recognize the exact nature of the pathology which he may see, but all physicians can easily become proficient in recognizing a deviation from normal. At that time, he can obtain additional aid from those who are more familiar with the varied pathology of these areas. The

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use of palpation in examination of the mouth, tongue and pharynx will offer additional valuable information. Again, it is not expected that each physician will appreciate the exact nature of abnormalities palpated, but he can certainly recognize deviations from normal and secure advice and help in establishing an accurate diagnosis.

Diagnosis.—The signs of intra-oral cancer are the signs of cancer anywhere in the body, either a palpable or visible tumor mass or a palpable or visible ulceration on mucosal surface. The other additional sign which may be of value in this area is that of leukoplakia. This is a thick, whitish, elevated lesion. It can become malignant without showing actual ulceration. In fact, it may not be until the cancer within the leukoplakic area has become reasonably advanced that ulceration takes place. Leukoplakia can occur anywhere within the oral cavity and must always be considered a precursor of cancer.

The important symptoms of cancer of the oral cavity are (1) the sensation of a mass or lump, (2) difficulty in swallowing, (3) pain anywhere within the mouth or nasal cavity or pharynx, often not well localized but almost invariably associated with an infected, open ulceration, (4) bleeding from the nasal or oral cavity, (5) pain referred to the external auditory canal or to the areas covering the accessory nasal sinuses, and (6) change of voice.

Any of these signs or symptoms warrants a thorough examination of the oral cavity, usually combined with X-ray examination and endoscopic studies. Failure to find the cause of such symptoms should warrant examination by someone with experience. Persistence of unexplained symptoms requires repeated examinations at short intervals over a reasonably long period of time.

The only accepted diagnosis is established by biopsy and histologic examination. While the procedure is a simple one, it is preferable that the biopsy be obtained by the person who will

be responsible for the actual treatment of the cancer whenever this is possible. If the examination is conducted in an institution without treatment facilities, it is reasonable that the biopsy specimen be obtained at the original examination. In most instances less duplication of work will occur if the biopsy is done by the one responsible for definitive treatment. This general principle pertains as much to small, easily accessible lesions as to those which may require the use of specialized instruments for obtaining the biopsy. An accurate pathologic report depends on a satisfactory biopsy. Treatment should not be undertaken without a histologic diagnosis.

Treatment.—Control of oral cancer involves the treatment of both the primary lesion and the demonstrable or palpable regional metastases.

Treatment of the primary lesion is accomplished either by excision of the cancer with an adequate margin of surrounding normal tissue or by complete destruction of the lesion by irradiation. The decision in each case depends upon (1) location, (2) size, and (3) histologic nature of the cancer in question. In general, any lesion which can be completely excised without producing permanent invalidism is best treated by this method. The main exceptions to this rule are tumors of lymphoid origin. Very large cancers invading adjacent structures are best controlled by surgical methods whenever technically resectable, even though the treatment of these large lesions may be quite destructive.

The actual histologic cell type will often indicate (1) those tumors which can seldom be controlled by irradiation (i.e., minor salivary gland tumors, adenocarcinomas) and (2) those in which irradiation is usually the treatment of choice (i.e., lymphosarcoma). The microscopic grading of the cancer is of the least importance in determining the method of treatment.

Unlike many internal cancers, those of oral cavity origin are sometimes declared to be incurable by surgical means, although not actually

inoperable. Theoretically, it is feasible to remove all tissues anterior to the vertebral column from the base of the skull to the clavicles, provided only that both common and internal carotid arteries are preserved (and perhaps only one set of these is required). Most cancers of the head and neck are initially operable. Although reconstructive surgery can do much to rebuild large defects which may be produced, there are still structures and areas within the oral cavity which cannot be restored in a manner compatible with a satisfactory existence. Limitations of this nature are more uncommon each year by virtue of innovations of the interested surgeons of many medical centers.

In the surgical treatment of cancer in any area the main principle is the removal of the neoplasm by a block excision carried through surrounding normal tissue. The extent of any block dissection depends upon the individual tumor under consideration, but it is an established fact that cancer cannot be "shelled out" or "scraped" from a neighboring structure with assurance that there will be no recurrence. To "shell out" or "scrape off" a cancer may be justifiable as a palliative procedure, but neither has a place in curative therapy.

A majority of patients with cancer of the head and neck who die as a result of the cancer have no demonstrable extension of the cancer below the level of the clavicle. Hence, the control of the local lymphatic spread is next in importance to eradication of the lesion. The ideal method of control is the removal of the primary cancer and the regional lymph nodes in continuity, a procedure so well defined and carried out in treatment of cancer in the breast.

The basic operation in the surgical treatment of oral cancer is the neck dissection (often termed the radical neck dissection). This operation removes all tissue beneath the platysma muscle and superficial to the deep neck muscles from the level of the clavicle to that of the mastoid and from the trapezius muscle posteriorly to the strap muscles anteriorly with preservation

of the phrenic, hypoglossal, vagus and lingual nerves, and the common and internal carotid arteries in almost every instance. The tissue removed includes the external and internal jugular veins, omohyoid and sternocleidomastoid muscles, the submaxillary and lower parotid gland, and all of the associated lymph nodes and intervening lymphatics. Although this is a painstaking and somewhat lengthy procedure, it is not particularly deforming and has a low mortality and a minimal morbidity. If a neck dissection alone is done, the only deformity which is readily apparent is the paralysis of the trapezius muscle on the side operated on. Occasionally it may be necessary to sacrifice the branch of the facial nerve to the lower lip, but this too is not of major importance in the treatment of an otherwise lethal disease.

This basic neck dissection can be combined with the removal of the adjacent organ or organs involved by cancer according to the location of the primary cancer. This rationale of treatment is the same as that applied to cancer of the breast, lung, colon, rectum, stomach, etc., where it is universally accepted. As far as the oral cavity is concerned, the neck dissection can be combined with removal of larynx, anterior part of the tongue, mandible, buccal mucosa, floor of the mouth, pharyngeal wall, base of the tongue, soft palate, maxilla, and tonsil. The only limiting factors in these operations have been as follows: (1) It must be probable that the cancer can be completely removed; (2) it must be possible to return the individual to a useful existence either immediately or within the foreseeable future.

The basis for the acceptance of this type of therapy must be a statistical analysis of a sizable group of cases followed over a sufficient period of time. The largest series has been that of Martin. Although his results are not yet available for publication, they indicate that the procedure is justified in the majority of cases of this type of cancer. Not all of the malignant tumors of the oral cavity require or are suitable

for this type of therapy, but the procedure must receive first consideration. A less extensive method of therapy may be utilized only after very careful consideration and justification. Obviously the earlier and the smaller the lesion, the better should be the possibility of control by local treatment alone. On the contrary, once demonstrable metastases are present in cervical nodes, control by any method excluding the basic neck dissection is seldom possible.

The greatest clinical need in this field is a test to determine if a given cancer is capable of metastasizing, or has metastasized to regional nodes or other organs. Until such a test is available the extent of treatment of any individual case remains difficult to decide and must rest on broad general principles established by statistical studies. This permits only a minimum of individual variation.

It is well to remember that methods of treatment of cancer in general are measured in terms of: (1) 5-year survivals of freedom from disease, and (2) palliation. A study of the 5-year survivals of freedom (i.e., the cures) in a large series of cases yields the only valid method for determining the adequacy or inadequacy of any given treatment. In the consideration of any method of curing cancer, comparison with an isolated "case" is of no value. Any conclusion on the basis of a single "case" must be regarded with extreme skepticism. As a corollary, conclusions on the basis of the study of a statistically significant group of cases can never be disregarded. However, in regard to palliation, one is justified in referring to a single case or a few cases, since little is lost as long as cure is no longer possible. Palliation of a potentially curable case is to be avoided at all times.

Irradiation.—Although radiation therapy has not been stressed in this presentation, it has a definite place in the treatment of some oral cancers. In therapy of malignant tumors of lymphoid origin it is the treatment of choice, except in very specific instances in which the disease seems to be of unicentric origin, is well

localized, and is amenable to adequate surgical removal. Any surgical procedure on a cancer of the oral cavity of lymphoid origin requires careful consideration, since there are 52 per cent 5-year survivals following treatment by irradiation of malignant lymphomas of the head and neck origin. However, an adequate series of cases has been presented by other authors indicating that surgical removal of these tumors followed by irradiation yields even better results in very carefully selected cases.

Treatment of most cancers of the nasopharynx is a radiologic problem. These cancers behave very similarly to lymphosarcomas and usually are technically inoperable because of their relation to the base of the skull.

In the treatment of minute cancers of the oral cavity, excepting those which biopsy shows to belong to the resistant type, irradiation can be about as effective as surgical excision, provided that the lesion is accessible to accurately directed irradiation. However, most of these accessible minute lesions are more simply handled by surgical excision in a shorter period of time with considerably less morbidity.

Treatment of the advanced cancer of the oral cavity by irradiation is seldom effective in controlling the disease. Often even the palliation received is of short duration. Those advanced lesions which are technically operable are better handled by surgery even from the viewpoint of palliation.

Chemotherapy.—Chemotherapy of any malignant tumor of the oral cavity is never curative. Irradiation or surgery remain as the only methods of cure. Use of nitrogen mustard compounds affords a good method of palliation in cases of malignant tumors of lymphoid origin which have failed to respond to irradiation and/or have become generalized. The same compounds are also quite effective in the treatment of cancers of the nasopharynx which have failed to be controlled by irradiation but have not been particularly effective in any other cancers of the oral cavity.

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RECENT ADVANCES IN CANCER

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CANCER OF THE URINARY BLADDER

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Tumors of the urinary bladder, derived from transitional epithelium, regardless of their microscopic appearance, are rightly considered malignant. The high incidence of recurrence in fulgurated or incompletely resected lesions and the remarkable tendency to new tumor growth months or years after adequate treatment of the original tumor warrant this opinion. Tumors tend to increase in malignancy as they infiltrate the bladder wall. Although distant metastases are almost unheard of in the case of noninfiltrating papillary bladder tumors, the rate of metastasis in the case of infiltrating papillary carcinoma, adenocarcinoma or squamous carcinoma, is high. Therefore, it has been useful to divide neoplasms of the bladder into infiltrating and noninfiltrating lesions as a guide to prognosis and for therapy.

The cardinal symptom of bladder tumor is hematuria. Gross or microscopic terminal hematuria points toward the diagnosis of cancer of the bladder until ruled out by painstaking cystoscopic observation. Frequency of urination with nocturia in the presence of hematuria is a fairly reliable symptom complex associated with infiltrating bladder carcinoma. Pain is rarely present with cancer of the bladder unless

the tumor invades the trigone, ureteral orifices, or vesical orifice.

The cystoscope is the instrument of precision for diagnosis. With rare exception, cystoscopy is definitely indicated for patients with hematuria. The diagnosis of cancer of transitional epithelium, involving kidney pelvis, ureter or bladder, may be made by examination of the urine sediment by the Papanicolaou technic, but cystoscopy must be done and we can see no point in delaying the indicated procedure.

Between 80 and 85 per cent of bladder tumors arise in the vicinity of the ureteral orifices and vesical orifice. Tumors situated on the anterior wall of the bladder near the vesical orifice are not always visible when the foroblique or the right-angled telescope system is employed. This "blind spot" may be visualized by use of the retrograde telescope. Further information regarding the extent of the tumor and/or its infiltration may be obtained by cystography either by the retrograde or excretory method. Air cystography gives better delineation of the tumor. Films should be exposed in the AP, PA, and oblique projections. The tumor is best visualized on the bladder wall nearest the film cassette. Excretory or retrograde urog-

raphy should be done to rule out tumor of the renal pelvis or ureter which may extend or metastasize to the bladder. Cancer of the bladder is rarely palpable through the abdominal wall. Combined abdominal and rectal palpation, or combined abdominal and vaginal palpation, bimanually under anesthesia, as advocated by Jewett,¹ to estimate the operability of the lesion, is recommended. Treatment of carcinoma of the bladder will be taken up under two headings: (1) infiltrating tumors, and (2) noninfiltrating tumors.

Infiltrating tumors.—Infiltrating carcinomas arising on the anterior wall or in the vault of the bladder may cause minimal symptoms and are usually large when the patient seeks medical aid. Segmental resection with inclusion of a wide margin of bladder wall is feasible. Isolated instances of cure are recorded, but the majority of these anterior wall tumors have invaded the perivesical fat or have involved the peritoneum before surgery is undertaken. Six of the 8 of my patients widely resected have died from metastasis.

Jewett and Cason² have reported on 55 cases of segmental resection for infiltrating carcinoma. Among 41 of their patients, in which infiltration extended more than halfway through the muscularis, there was only one 5-year survival. Among 14 patients, in which the infiltration had extended less than halfway through the muscularis, there were no deaths from cancer of the bladder. The operative mortality after segmental resection of anterior wall tumors is remarkably low, whereas the mortality for bilateral ureterosigmoidostomy with total cystectomy is considerable. We do not believe that total cystectomy has any advantage over segmental resection for anterior, solitary lesions; multiple infiltrating tumors may require total cystectomy.

Solitary infiltrating cancer at the ureteral orifice has been treated by hemicystectomy with reimplantation of the ureter or by ligation of that ureter. When the ureter is dilated and

infection is present, ligation is contraindicated. Reimplantation of the ureter into a movable portion of the bladder is not a satisfactory procedure, but a few patients have had excellent results. The ureter will effect a satisfactory communication with the bladder if left dangling beside an incompletely closed bladder wall. This, in my opinion, is a better procedure than ureterovesical anastomosis under tension.

Urologists early turned to radium and X-rays in hope for cures. Irreparable injury to the skin, radiation proctitis, and severe contractures of the bladder wall have occurred. My experience with 1,000 KV X-rays has been limited but not satisfactory. A technic of X-radiation through a cystostomy wound has been developed by Goin and Hoffman.³ I cannot subscribe to such a procedure on the basis of recorded results.

Excision of the accessible portion of the tumor by suprapubic cystotomy, with radiation of the remaining portion of the tumor by means of implanted radium element or radon seeds, has been widely practiced. I have observed a few instances of cure. Although the full lethal tumor dose may be administered, necrosis is inevitable. In order to achieve the lethal tumor dosage to the entire tumor it is necessary to deliver excessive dosage at the site of implantation.

The method of contact irradiation developed by Young⁴ allowed placement of a bar containing 200 milligrams of radium on the vesical surface of the tumor by endoscopic means. By this method excessive surface radiation is necessary to allow for sufficient depth dosage which results in surface necrosis and painful sloughing.

Combined methods of application of radium locally with the use of X-rays have been tried. I do not feel, however, that the present methods of radiation for infiltrating bladder cancer are adequate.

Within the past 15 years the pendulum has swung from irradiation toward more radical surgery for infiltrating carcinoma. The technics of ureterosigmoidostomy developed by Coffey⁵

have been extended and modified. The multiplicity of technics for this procedure is mute testimony to its inherent defects. Postoperative mortality from peritonitis, pyelonephritis and uremia varies in different clinics, since the operation must, in many instances, be performed on patients considered poor operative risks because of ureteral obstruction by the tumor and serious infection. The tendency is toward simplification of the operation.

Nesbit⁶ reports no mortality and excellent results by a new technic of transplantation. He claims that by his method hydronephrosis and pyelonephritis are practically nonexistent.

Now the results of total cystectomy can be evaluated:

Coffey's operative mortality⁵ was 25 per cent in 16 cases, and 5 of the 16 patients died within 17 months. Shackman,⁷ in a series of 21 cases, had an operative mortality of 57 per cent. One of the 9 patients who survived the operative procedure died within 12 months without recurrence of cancer, and 3 died within 2½ years. Smith⁸ reported a series of 47 patients. Both intraperitoneal and extraperitoneal methods of transplantation were used. Twenty-one per cent died in the hospital, 30 per cent died of recurrence of tumor, 30 per cent died of pyelonephritis or other causes, and 12½ per cent, or 6 patients, are living without evidence of cancer and with satisfactory renal function.

In a discussion on "The Treatment of Serious Tumours of the Bladder" at the meeting of the British Association of Urological Surgeons⁹ the following factors were brought out. The mortality from partial cystectomy, fulguration and implantation of radium is rather low. The older surgeons apparently felt that total cystectomy was too formidable a procedure and that good results were obtained by multiple fulgurations and implantation of radium. Fifty-eight cases of ureteral transplantation followed by total cystectomy were reported by 6 surgeons. Their operative mortality was 15 per cent; deaths within 18 months came to 48 per cent; those apparently well 1½ years reached 19 per cent; 18 per cent had not been followed long enough to predict results.

Ferris and Priestley¹⁰ reported on 119 patients, 99 having bilateral ureterosigmoidostomy, 8 having bilateral cutaneous ureterostomy and 12 miscellaneous procedures and total cystectomy with a mortality rate of 13 per cent, 8 of the patients having died before total cystectomy was accomplished. Whereas 29 per cent

of their patients survived 3 years or more, only 19 per cent have survived 5 or more years after cystectomy. These figures are from the series of 1937-1946 inclusive, but for the last 5-year period their hospital mortality rate had been reduced to 8 per cent.

Jewett and Lewis¹¹ reported 54 cases which they divided into 4 groups: (1) submucosal infiltration, (2a) superficial muscular infiltration, (2b) deep muscular infiltration, and (3) complete penetration of the bladder wall. There were apparently only 2 operative deaths. Among 41 cases in which the infiltration was deep there were no acceptable instances of cure. Among 13 cases in which the infiltration was superficial there were only 2 patients who were known to have died of cancer. Three have lived more than 5 years without evidence of recurrence. In the discussion of these papers, Wilhelm reported 24 cases done by extraperitoneal transplantation, one side at a time, without any mortality.

In my own small series of 11 cases of transplantation of the ureters into the bowel followed by total cystectomy there was 1 operative death from embolism after transplantation of the first ureter. Three patients have died from cancer within 2 years following surgery and 7 have no evidence of cancer but are not well because of chronic renal infection. One patient, operated upon 11 years ago by cutaneous bilateral ureterostomy and total cystectomy, is quite well and very little handicapped by his cutaneous transplants.

In my opinion, bilateral transperitoneal ureterosigmoidostomy with total cystectomy is practicable, but 2- or 3-stage procedures are indicated for elderly and debilitated patients. The palliative effects, relief of pain, cessation of hemorrhage of the bladder, and dysuria, have been good. The cure rate for total cystectomy has been low, because many of the cases were too far advanced or metastases were already present although not demonstrable. By proper selection of cases, improvements in operative technic, and judicious use of antibiotics and chemotherapeutic agents the operative mortality can be reduced to a minimum and the cure rate extended.

Noninfiltrating carcinoma.—Transurethral resection of the entire tumor has now supplemented fulguration, and if careful technic is practiced good specimens for biopsy may be obtained. The danger of perforation of the bladder wall is ever present. There are, of

course, areas of the bladder where transurethral resection is mechanically impossible. Some pedunculated tumors are too large for transurethral resection, and cystotomy should be done.

The problem in the treatment of noninfiltrating tumors is not only adequate excision but prevention of new growths. Although cystotomy has been considered contraindicated for papillary tumors, I have only noted wound implantation in cases of infiltrating cancer.

One thing is certain, the high rate of recurrence and of new tumor formation demands vigilant cystoscopic reexamination at frequent intervals.

The problem of prevention of recurrence and new tumor growth is paramount. Prophylactic X-radiation has been employed without adequate statistical follow-up. Kirwin¹² has advocated suprapubic excision of the tumor or tumors followed by treatment of the bladder mucosa with carboic acid and alcohol. I have employed this method in 3 cases; fortunately no recurrent tumors have been noted, but the degree of vesical contraction from scar has been most distressing.

The figures of Marshall¹³ support the contention that treatment of noninfiltrating tumors by means of fulguration or excision with implantation of radon seeds locally is inadequate. The method may be satisfactory as far as eradication of the local lesion is concerned, but this form of therapy is not designed to prevent new tumor growth elsewhere in the bladder.

For prevention of new tumor growth and for adequate treatment of existing tumors, Dr. Milton Friedman and I have developed a method of application of radium element or its equivalent of radon to allow radiation of the area of bladder wall where new growths are prevalent. Radium, or the equivalent of 20 to 25 milligrams in the form of radon, is secured at the center of a balloon (Foley) catheter distended with 35 cubic centimeters of colored fluid. When the radium is accurately centered (checked by radiographs),

the bladder wall in contact with the distended balloon will receive (at 2 centimeters distance from the source) the equivalent of about 1000 r per day. We have used this method for treatment after local resection of multiple or recurrent noninfiltrating tumors and for selected cases of superficially infiltrating cancers. An average dose of 10,000 r to the mucosal surface of the bladder has been employed. The exact lethal tumor dose for the various types of tumor is being investigated. Cystoscopic observation at 3-month intervals has shown no evidence of recurrence nor of new tumor growth in the irradiated area. One patient out of 8 has had a new tumor developing at the apex of the bladder, this area having been drawn out of the radiation field by a cystostomy tube. Four patients have been followed 4 years. Whereas the immediate radiation reaction has been from moderate to severe, lasting from 6 to 12 weeks, the resultant radiation effect amounts to very mild telangiectasia of the mucosa. The bladder capacity has not been appreciably reduced.

SUMMARY

1. All transitional epithelial tumors of the bladder, regardless of their microscopic pattern, should be considered malignant.

2. The cardinal symptom of bladder tumor is hematuria. Frequency and pain are serious symptoms.

3. The cystoscope is the instrument of precision for diagnosis.

4. Infiltrating carcinoma, with few exceptions, requires segmental resection or ureteral transplantation with total cystectomy for cure.

5. Noninfiltrating tumors may, with few exceptions, be treated by endoscopic resection. The high rate of recurrence or new growth requires careful follow-up by cystoscopic reexamination. Acknowledgment of this fact indicates inadequacy of treatment; therefore, a method of radium application has been recommended to prevent recurrence.

(Bibliography on page 284)

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MALIGNANT AND POTENTIALLY MALIGNANT INTRATHORACIC TUMORS

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Primary tumors of the chest are common. They may originate in the lung, the esophagus, the mediastinum, or the various tissues of the thorax. By far the most important and common thoracic cancers originate in the lung. These are properly termed bronchogenic tumors, since it has been established that most of them arise from bronchial epithelium and rarely from the parenchyma of the lung. Second in frequency and importance are cancers of the esophagus. In addition to these, various tumors of the mediastinum and chest wall are encountered.

BRONCHOGENIC TUMORS OR LUNG CANCER

Unfortunately until rather recently lung cancer was considered a rare disease. During the past 20 years, however, it has become more and more apparent that its incidence is increasing and that this lesion constitutes one of the most common forms of cancer. At the present time it is safe to state that cancer of the lung is more common than cancer of the colon and constitutes at least 10 per cent of all cancers. In some clinics cancer of the lung is found to be more common than gastric carcinoma.

These tumors are more common in the male than in the female and occur most frequently in the fourth to sixth decades of life. It is im-

portant to emphasize, however, that lung cancers may be found in either sex and at almost any age.

Bronchogenic carcinomas have been designated as round-cell, oat-cell and adenocarcinomas, depending upon the arrangement of the cells. Frank squamous-cell configuration, however, is the most common variety and almost always arises from bronchial epithelium.

Another type of lung tumor which deserves mention is the so-called bronchial adenoma. These tumors are more frequent in women and are usually found in the larger bronchi but may arise in any part of the lung. Bronchial adenomas may be in the shape of a polyp attached to the bronchial mucosa, but more commonly the intramural type is found when only part of the tumor presents in the lumen of the bronchus. This variety of lung tumor does not often metastasize, but there are enough authenticated cases of metastasis to consider it a malignant or potentially malignant tumor. From a clinical standpoint it is a deadly lesion, because it eventually kills the patient by bronchial obstruction and infection or from hemorrhage. The philosophy of treatment, therefore, should not vary essentially from that employed for the treatment of other lung tumors.

The most important clinical manifestation of

lung cancer is a chronic cough. Since many of both the male and female population of this country use tobacco, it is useless to inquire of a patient whether or not he has a chronic cough. The important question involves changes in cough habits. If, for example, the cough has become more frequent or severe, it may be of clinical significance. Hemoptysis and wheezing are common manifestations of bronchial tumors. Pain and loss of weight indicate far advanced disease and usually inoperability.

The most reliable and easily obtained diagnostic method for the establishment of lung cancer is the roentgenogram of the chest. Tiny intra-bronchial carcinomas may not reflect themselves on the conventional roentgenogram, but this is the exception. If one remembers that the presence of an unexplained shadow in an X-ray film of the chest may indicate the presence of carcinoma, and that if tuberculosis is ruled out the lesion must be considered carcinoma until proven otherwise, few diagnostic calamities will occur.

Other diagnostic procedures include examinations with the bronchoscope, lipiodol bronchograms, and searching the sputum for carcinoma cells by the Papanicolaou technic; and, finally, if a tissue diagnosis cannot be made by these methods, exploratory thoracotomy should be recommended. In this connection it is important to emphasize that the risk of exploratory thoracotomy is no greater than an exploratory laparotomy in comparable operative risks.

Diagnosis and treatment. The only available satisfactory treatment for lung cancer is surgical extirpation when the lesion has not advanced to an inoperable stage. It is interesting in this connection that recent data indicate the results from surgical treatment of cancer of the lung are considerably better than the results from treatment of carcinoma of the stomach.

It is safe to predict that, with the increased utilization of X-ray examinations of the chest and the knowledge that lung cancer is a common disease, the results of the surgical treatment of carcinoma of the lung will steadily improve.

CARCINOMA OF THE ESOPHAGUS

Cancer of the esophagus is not as common as bronchogenic carcinoma but occurs with sufficient frequency to make it an important problem. Notable achievements have been made in its treatment during the past 10 years. The progress in the treatment of this disease makes it seem incredible that up to 1943 the only 5-year cure of esophageal cancer was achieved by Torek as the result of a successful operation in 1913. A diagnosis of cancer of the esophagus is no longer a death sentence. Moreover, the palliative results by primary anastomosis of stomach to esophagus, after the excision of the obstructing mass, have now saved hundreds from one of the most hideous kinds of death. The monumental contributions of Sweet, Garlock and many other American surgeons have made the successful surgical removal of esophageal cancer a common occurrence in all major surgical clinics.

Diagnosis and treatment. The only satisfactory treatment for cancers of the esophagus is surgical extirpation. Modern technics have made it possible to restore the continuity of the esophagus and stomach in practically all cases, even when the lesion is above the arch of the aorta.

The disease is more common in males and occurs in the so-called cancer age groups but may occur in both sexes and at almost any age. Early consideration of the possibility of the presence of an esophageal cancer in patients with dysphagia or mild digestive disturbances is a most important factor in the diagnosis. Severe or complete esophageal obstruction demands the diagnosis of cancer of the esophagus until proven otherwise. This is usually established by examinations with the esophagoscope and roentgenologic studies.

TUMORS OF THE MEDIASTINUM

A rather large variety of neoplasms may occur in the mediastinum. Some of these are benign but practically all of them are potentially

malignant. A common variety of mediastinal tumors includes lesions which arise from lymphatic tissue. This group includes lymphosarcoma, Hodgkin's disease, and any neoplasm which may originate from lymphatic tissue situated in the mediastinum. Roentgen therapy is the preferred treatment for these tumors, but exploratory operation is occasionally necessary to establish the diagnosis. Dermoids and teratomas are usually situated in the anterior mediastinum and are always potentially malignant.

Various mediastinal cysts including bronchogenic cysts, pericardial cysts and cystic hygromas may have mediastinal locations. These lesions may be benign but should be removed, since it is impossible to differentiate them from potentially malignant lesions.

Another common group of mediastinal tumors arise from nerve tissue and are usually located in the posterior mediastinum. These are classified as ganglioneuromas, neurofibromas, and neurosarcomas, the latter if malignant degeneration

has occurred. In addition to the common mediastinal tumors already enumerated, lipomas, chondromas, osteochondromas, and other neoplasms may be found.

All mediastinal tumors should be considered potentially malignant and surgical extirpation the treatment of choice except in the lymphoma group, in which roentgen therapy is of temporary relief.

Mediastinal tumors may indicate their presence by pressure symptoms on the various organs of the thorax. When this occurs it is often too late for successful treatment. Discovery of an asymptomatic mediastinal mass on roentgenographic examination offers the best possibility of a cure.

Until other diagnostic aids become available, the early detection and successful treatment of all malignant tumors of the chest depend upon the frequent and general use of roentgenograms of the chest as part of the examination of every patient.

CANCER AND OTHER MALIGNANT TUMORS IN THE DISTRICT OF COLUMBIA, 1880-1948*

TABLE 1

YEAR	NUMBER OF DEATHS, D. C.			DEATH RATE PER 100,000 POPULATION			
	White	Colored	Total	District of Columbia			U. S. Registration Area
				White	Colored	Total	
1880	56	13	69	47.	21.	38.	—
1900	147	71	218	72.	78.	74.	63.0
1920	339	78	417	103.7	70.9	95.3	83.2
1940	779	227	1,006	164.4	119.9	151.7	120.3
1945	945	325	1,270	137.4	116.2	132.2	134.5
1946	941	333	1,274	151.6	138.6	147.9	130.1
1947	950	323	1,273	154.3	131.6	147.9	133.4
1948	934	361	1,295	145.5	141.1	144.2	—

* The statistics presented herewith were compiled by the Bureau of Vital Statistics of the District of Columbia Health Department early in 1949. In the year 1880 when the population of the District of Columbia was 180,349 the death rate per 100,000 population from cancer was 38.0. In the year 1948 the death rate from cancer was 144.2, an increase of 106.2 per 100,000 population.

TABLE 2

Cancer Death Rates in Selected Cities of More than 500,000 Population for the Calendar Year 1947

CITY (IN ORDER OF POPULATION)	
New York, N. Y.....	184.0
Chicago, Ill.....	170.4
Philadelphia, Penna.....	193.0
Los Angeles, Calif.....	156.0
Detroit, Mich.....	121.0
Cleveland, Ohio.....	176.0
San Francisco, Calif.....	189.0
Washington, D. C.....	147.9
St. Louis, Mo.....	239.3
Pittsburgh, Penna.....	183.0
Milwaukee, Wisc.....	165.9
Buffalo, N. Y.....	182.8
Minneapolis, Minn.....	136.1
Median rate—above cities.....	176.0

TABLE 3

Deaths from Cancer by Site, Age, Race and Sex, in the District of Columbia—Calendar Year 1948

			TOTAL	UNDER 1 YR.	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65
					yrs.	yrs.	yrs.	yrs.	yrs.	yrs.	yrs.	yrs.	yrs.
Total	White	M	435	1	3	2		13	16	23	64	119	194
		F	499	2	3			6	13	32	100	116	227
	Colored	M	184		1				3	18	39	53	70
		F	177					3	8	33	45	48	40
Buccal cavity and pharynx	White	M	34						1	2	5	12	14
		F	5								1	1	3
	Colored	M	3								2		1
		F											
Digestive organs and peritoneum	White	M	167					2	6	8	21	43	87
		F	149					1	2	6	19	36	85
	Colored	M	93							9	20	29	35
		F	44							7	9	12	16
Respiratory system	White	M	81					3	2	5	19	30	22
		F	23					1			8	3	11
	Colored	M	29						2	4	9	7	7
		F	5									4	1
Genitourinary	White	M	92		1	1		3	3	4	10	22	48
		F	257	1				2	5	21	59	60	109
	Colored	M	39		1					1	4	11	22
		F	100					2	7	21	30	25	15
Skin	White	M	3										3
		F	3					1	1				1
	Colored	M											
		F											
Glioma	White	M	15	1	1	1		4		1	4	2	1
		F	7	1	2				2		2		
	Colored	M	1									1	
		F	1										1

(These statistics will be continued in the July issue.)

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RECENT ADVANCES IN CANCER

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NUMBER 1

PALLIATIVE IRRADIATION THERAPY IN CARCINOMA OF THE BREAST

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Washington

It is well known that any suspicious mass in the breast in any woman should receive careful attention regardless of age. Any mass which is suspicious of malignancy should have the advantage of a biopsy specimen and proper surgery performed followed by irradiation therapy. Although breast malignancy is considerably greater in those 40 years of age or older, 2 per cent are found in the groups of the third and fourth decades.¹

There is a growing feeling in some parts of this country and abroad that preoperative irradiation is of benefit in breast cancer² in addition to the usual postoperative therapy.³ The generally accepted practice in the District of Columbia and most other places is radical mastectomy in stages 1 and 2 and the combination of X-ray and surgery in stage 3 where the axilla is involved. In stage 4 with systemic metastasis present, irradiation only unless the local lesion is painful, uncomfortable or bleeding, when local excision is desirable. It has been our experience that postoperative irradiation over the line of incision reduces the incidence of cutaneous recurrences. This would suggest that postoperative irradiation would be of benefit even in stages 1 and 2.

In spite of considerable publicity directed both

to the medical profession and the general public we are still seeing many advanced and hopeless cases of malignant lesions of the breast; however, there is much that can be done toward prolonging the useful life of these patients.

We found in a recent survey of 194 unselected cases of carcinoma of the breast from a series of more than 2,000, 58 cases in which X-ray treatment was used for recurrences. The average survival was 19.8 months after recurrence or metastasis had occurred. The average survival of all cases irrespective of the original type of therapy and extent of disease was 35.2 years.

In the above group there were 43 patients who were considered inoperable and received X-ray therapy alone. In 7 of these there were ulcerations. Under therapy 2 healed temporarily, 2 received no benefit and 3 were healed permanently.

A very new technic is being developed in the use of estrogenic substances being injected directly around the periphery of the ulcerated tumor mass with a hypodermic needle. This is used only in those patients who have passed the menopause and for whom other procedures are not feasible. In many instances the tumor recurs in spite of continued use of the estrogenic substance. In

spite of this, the relief of discomfort, the psychologic benefit, and the simplicity of the procedure offer much for palliation in an otherwise impossible situation.

When inflammatory carcinoma is present, surgery often is impossible. X-ray therapy frequently localizes the disease to such an extent that mastectomy may be done in the usual fashion. In 5 patients not subsequently operated upon, we found 1 who showed slight local improvement, 1 with moderate local improvement, and 3 with marked improvement. These latter showed either subsequent recurrence or a residual small mass. Unexpectedly, exactly similar results were obtained in those breasts showing the typical pigskin or orange-peel appearance.

Of 33 patients treated with X-rays to the primary lesion in otherwise advanced cases, 10 per cent showed complete disappearance; 18 per cent were considered to have shown a reduction in size by actual measurement of 75 to 80 per cent. There were also 18 per cent showing a 50 per cent reduction, 24 per cent slight or temporary improvement, and 30 per cent no change.

The technic used consisted of a series of 15 to 20 treatments followed by another short series of 8 to 12 in 4 to 6 months to the residual. Roentgen pneumonitis was a rare occurrence in our series.

Axillary and supraclavicular lymphadenopathy treated with irradiation therapy show a cured rate of 53.3 per cent, temporary disappearance for 3 to 6 months in 6.7 per cent, partial regression in 7 per cent, and no benefit in 33 per cent. The resistant lymphadenopathy showed fixation. The adenopathy responded equally as well whether it was cervical, supra- or infraclavicular, or axillary. It usually required 8 to 10 treatments to deliver sufficient X-rays to the involved lymph nodes. Response is usually slow, requiring at times 4 to 7 weeks for clinical disappearance. In many instances extensive adenopathy, particularly axillary or supraclavicular, may be rendered operative if it is not cured by the therapy.

Cutaneous recurrences in the scar area, if movable and solitary, may be excised. If they are

fixed and/or multiple, irradiation is the method of choice. In treating these we found that 23.3 per cent were permanently cured; 20.9 per cent disappeared but recurred months or years later; 46.5 per cent showed temporary improvement or regression; and 9.3 per cent had no improvement. The last were generally associated with a wide, cutaneous lymphatic involvement, and the portals used for treatment were of necessity quite large, thus limiting the amount of X-rays.

Most skin recurrences are treated with light therapy, which results in little or no systemic effect but gives a heavier local reaction.

Unfortunately, metastasis to the brain responds only temporarily or not at all. Local cranial metastasis may only regress under therapy, but death usually occurs too soon for any permanent effect.

Treatment of abdominal metastasis, if to the parietes, is fairly effective. We had 1 patient live over 2 years who had huge metastatic involvement of the abdominal wall. Intra-abdominal metastasis is, as a rule, not responsive to X-ray therapy. In a rare case liver metastasis with ascites may be retarded.

Pulmonary, pleural, and mediastinal metastasis, particularly the last, are usually resistant to X-rays, especially if the lung has edema. Mediastinal lymph node involvement usually fails to show roentgen-ray evidence of improvement, but symptomatic improvement of cough, pain, and venous engorgement is often striking after 20 to 30 X-ray treatments.

In the treatment of osseous metastasis we found that 11.4 per cent of patients showed no improvement, 57.1 per cent showed temporary relief or decrease of pain; 28.5 per cent showed prolonged pain relief of 6 months to 2 years, and 3 per cent showed X-ray evidence of healing. Eight to 10 treatments are usually required. Many times relief is obtained after 1 or more treatments, but the majority usually receive help in 10 to 21 days after therapy, and a few continue to improve up to 6 weeks. Treatment can be

repeated, but it is usually wisest to wait until 3 months has elapsed.

Castration either by surgery or X-rays is being used more and more in pre-menopausal women. There is a mixed opinion as to its value. Marshall and Hare⁴ at the Lahey Clinic believe that menopause is a problem in young women and that unless metastasis is aggravated and pain increased by the menstrual cycle castration need not be done. This agrees with our experience. When castration is performed in suitable cases, 13 to 15 per cent receive benefit and the growth may be retarded, but the effect is temporary.

In conjunction with irradiation, surgery and any other therapeutic measures used to control or at least retard the spread of an advanced breast lesion, general supportive measures should be used. It must be remembered that intensive irradiation in addition to the temporary local reaction at times also produces an anemia which is noticeable 4 to 6 weeks after heavy therapy. This should be relieved with iron and liver preparations and even transfusions, if indicated, when an already existing anemia is aggravated. Relief of pain by any medication suitable to the severity should be used, since the presence of pain increases anorexia and weakness in addition to the mental depression produced.

In addition to estrogenic substances injected locally into the lesion women with osseous metastasis often have considerable relief with the injection of androgenic hormones. It is not too uncommon for the bone lesions to show marked X-ray evidence of healing with consequent complete relief of pain which may last up to a year or slightly more.

If pain cannot be controlled by other means, prefrontal lobotomy is selected for cases in which life expectancy is not too short, frequently makes the remaining months of life much happier for both the patient and family, and nursing care

required for hypodermic administration and bed care is reduced considerably.

When there are metastases to the spine with resulting collapse of the vertebrae, pain and discomfort can be considerably improved by boards between the mattress and bed springs at night and orthopedic appliances such as braces or removable body casts in the daytime. It is not uncommon to see several cervical or thoracic vertebrae completely destroyed and the patient comfortable without narcotics on a régime of X-ray therapy, androgens, and orthopedic appliances.

SUMMARY

X-ray therapy is a valuable adjunct in the treatment of hopeless and surgically incurable carcinoma of the breast. It is most valuable in the treatment of local recurrences, osseous metastasis, and lymph node involvement, and least of all in intracranial, pulmonary and liver metastases. Castration is of debatable value, but I believe it should always be tried in all cases of disseminated disease, because remarkable results have occasionally been obtained.

BIBLIOGRAPHY

1. MARSHALL, S. F., AND FORNEY, N. N., JR.: Carcinoma of breast; analysis of 300 cases. *S. Clin. North America*, 1946, **26**, 723.
2. BUETTI, C.: Management of carcinoma of breast as part of fight against cancer. *Schweiz. med. Wchnschr.*, 1948, **72**, 310.
3. KAPLAN, I. I., AND ROSH, R.: Study of patients treated over period of 3 years in Radiation Therapy Department, Bellevue Hospital, New York City. *Radiology*, 1946, **47**, 583.
4. MARSHALL, S. F., AND HARE, H. F.: Carcinoma of breast; results of combined treatment with surgery and roentgen rays. *Ann. Surg.*, 1947, **125**, 688.

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CANCER STATISTICS—DISTRICT OF COLUMBIA

(Continued from June issue)

TABLE 4
Deaths from Cancer by Site, Race and Sex in the District of Columbia—1948*

SITE OF CANCER	WHITE		COLORED		TOTAL	DEATH RATE PER 100,000 POP.
	Male	Female	Male	Female		
Buccal cavity and pharynx.....	34	5	3	0	42	4.7
Lip.....	1				1	0.1
Tongue.....	13		2		15	1.7
Mouth.....	3	3			6	0.7
Jawbone.....	2	1			3	0.3
Unspecified.....	2				2	0.2
Pharynx.....	13	1	1		15	1.7
Digestive organs and peritoneum.....	167	149	93	44	453	50.4
Esophagus.....	12	4	17	4	37	4.1
Stomach.....	50	27	32	11	120	13.4
Duodenum.....	1				1	0.1
Rectum and anus.....	23	23	10	7	63	7.0
Intestines.....	42	56	15	10	123	13.7
Liver and biliary passages.....	17	16	5	2	40	4.5
Pancreas.....	21	16	11	8	56	6.2
Mesentery and peritoneum.....	1	5	2		8	0.9
Other and unspecified.....		2	1	2	5	0.6
Respiratory System.....	81	23	29	5	138	15.4
Larynx.....	11		5		16	1.8
Trachea.....		1			1	0.1
Bronchus.....	42	7	12	2	63	7.0
Lung.....	24	13	12	2	51	5.7
Pleura.....	1	1		1	3	0.3
Mediastinum and unspecified.....	3	1			4	0.4
Genitourinary.....	92	257	39	100	488	54.3
Cervix.....		46		29	75	8.4
Other and unspecified.....		37		20	57	6.3
Ovary.....		32		4	36	4.0
Vagina.....		3		1	4	0.4
Vulva.....		1			1	0.1
Other.....		1			1	0.1
Breast.....		119		42	161	17.9
Prostate.....	39		29		68	7.6
Testes.....	5		2		7	0.8
Penis.....	1				1	0.1
Kidney.....	16	6	1		23	2.6
Bladder.....	30	11	7	3	51	5.7
Other and unspecified.....	1	1		1	3	0.3
Skin.....	3	3			6	0.7
Glioma.....	10	5	1		16	1.8
Other and unspecified cancers of the brain.....	5	2		1	8	0.9
Adrenal gland.....	1				1	0.1
Bone.....	3	2	2	2	9	1.0
Thyroid gland.....	3	7	2	1	13	1.4
Nasal cavity.....		1		1	2	0.2
Other and unspecified organs.....	36	45	15	23	119	13.3
Totals.....	435	499	184	177	1,295	144.2

* Population, D.C., 898,000.

(These statistics will be continued in a later issue)

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RECENT ADVANCES IN CANCER

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THE VARIABILITY OF THE CLINICAL FEATURES OF GASTRIC CANCER

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Of the 150,000 cancer deaths occurring annually in this country, gastric cancer contributes approximately 40,000 victims. It is the leading cause of cancer deaths. Among these deaths from gastric cancer will be many physicians. It has been stated that doctors do not diagnose early gastric cancer in themselves any better than they do in their patients. Wangensteen¹ recently listed some authorities on the subject of diagnosis and treatment of gastric cancer who died of this disease because of its tardy recognition. W. J. Mayo, vonMickulicz and Carman are some of these famous physicians. No one can be blamed for this state of affairs. It is a dramatic reminder of the difficulties of early diagnosis of this fearful disease. A report by Welch and Allen² is typical of other recent papers on the resectability and 5-year cure rate of this disease. Fifty per cent of their gastric cancer cases had some type of gastric resection with only a 7 per cent 5-year survival rate in the whole group.

Although these figures from the best surgical clinics in the country are not encouraging, it

remains true that the most fruitful method now available to increase the number of 5-year survivals is to reduce the delay from the onset of symptoms to surgical intervention. It is our belief that familiarity with the variability of the clinical picture gastric cancer presents will enable the practicing physician to shorten the delay.

Cancer of the stomach may be absolutely without symptoms. This is a proved fact that must be given widespread recognition. It also is a probable explanation for the many failures of early diagnosis. St. John, Swenson and Harvey³ examined fluoroscopically, and where indicated roentgenologically, 2,413 patients over the age of 50 with no digestive symptoms of appreciated significance. In this asymptomatic group it was emphasized that these people would not have had gastrointestinal X-ray examinations but for the survey. Three gastric malignant lesions were discovered. One was a lymphosarcoma, another was a fungating carcinoma in the fundus, and the third was a lesion near the pylorus. Sherman⁴ did a similar study

in 1,399 patients without gastric symptoms and found 2 carcinomas. It would be valuable to know how long these lesions may remain asymptomatic, but such data are not available. Widespread employment of the methods used in these studies is not practicable from the economic point of view, nor is there available sufficient trained personnel to do such annual examinations in any sizable portion of the population. Emphasis is here placed on the fact that gastric cancer may occasionally be asymptomatic.

Much has been written about the relationship of cancer of the stomach and achlorhydria. This relation is also variable. About 65 per cent of all patients will have no free hydrochloric acid after histamine stimulation, and additionally a large number have hypoacidity (below 30 clinical units). But there remain too many cases of gastric cancer with either normal or increased acidity to make achlorhydria a dependable diagnostic sign. Additionally 1 out of 4 presumably normal persons above the age of 45 have achlorhydria. Nevertheless, the yield of gastric neoplasms in achlorhydric persons without symptoms is greater than in the unselected groups previously discussed. Rigler⁵ found 3 gastric cancers and 19 gastric polyps in 544 symptomless persons over 50 with either achlorhydria or hypochlorhydria undergoing roentgen examination. Although the implications as to etiology are not fully understood, Comfort, Kelsey and Berkson⁶ have presented evidence that a subnormal mean gastric acidity is characteristic of patients during all intervals in years before cancer is diagnosed and as long as 20 years before cancer develops.

It has been estimated that gastric cancer is 10 times more common in patients with pernicious anemia than in the rest of the population.⁷ This group of patients, small though it be, requires repeated X-ray examination at intervals of 6 to 12 months to diagnose early neoplasm. The reward of finding an asymptomatic early cancer is not uncommon in this group.

Anemia of any variety, microcytic or macrocytic, due to blood loss, impaired liver function, or inanition may be the only sign or may be part of the presenting syndrome of gastric cancer. It is not sufficient to prescribe iron or injections of liver. Study of the stool for occult blood followed by gastrointestinal X-ray examination, among other studies, should be performed. An ulcerating gastric cancer may have as its first manifestation occult blood in the stools or anemia long before the obvious signs of an epigastric mass or a Virchow's node appear.

Even age cannot be depended upon absolutely. Though the vast majority of these cancers occur after the fifth decade of life, McNeer⁸ in a review of the literature found 501 cases of gastric cancer in persons below the age of 31. The finding of a gastric lesion in a young person should not give us a false sense of security that the lesion is surely benign.

It cannot be emphasized too frequently that gastric cancer in the early stages is often a silent disease. The classical textbook picture of severe weight loss, hematemesis, anorexia, palpable abdominal mass, and persistent epigastric pain is of little more practical significance, in so far as the lives of 90 per cent of the patients are concerned, than the recognition of the disease at autopsy. The point to be remembered is that while a vague unimpressive history of dyspepsia or indigestion (mild distress related to meals) is a common early story, there is no history that can be depended on in evaluating the individual case. Vague digestive symptoms in the patient over 45, previously free of such complaints, should be the signal to pursue the search aggressively. Engel⁹ feels that the following symptoms occur early consistently enough to warrant such a search: a tired and weak feeling, loss of appetite, loss of desire for meat, and indigestion. Of all the diagnostic studies, the gastrointestinal X-ray examination is most important. Gastroscopy is supplemental to X-ray examination and not competitive. Repeated studies indicate that

fewer gastric neoplasms are missed when both methods are used than with either alone. The application of the Papanicolaou technic to gastric aspirates seems to hold some promise in increasing early diagnosis and will undoubtedly be further evaluated within the next few years.

The ulcer syndrome presents itself in fully one third of the patients with gastric cancer. Most disturbing is the fact that it may be of recent onset or may have occurred initially many years previously. If there is free acid in the stomach, the character and pattern of the pain may be indistinguishable from that of benign ulcer. The gastric juice may digest the carcinoma, producing a lesion histologically similar to benign ulcer. During antacid therapy the lesion may undergo complete or nearly complete healing. In attempting to differentiate benign and malignant stomach ulcers, these phenomena illustrate how closely a malignant lesion may simulate a benign lesion. By foregoing surgery in cases of gastric ulcer, the physician should be willing to assume the responsibility of close follow-up necessary to prevent far-advanced carcinoma eventuating in a lesion thought initially to be benign.

Bockus¹⁰ and others have commented on the varied initial symptoms. At times there may be no gastrointestinal symptoms. In others loss of weight and strength occur with or without impaired appetite and intake of food. Occasionally a patient with gastric neoplasm is seen with loss of weight despite average or increased intake of food. This may also occur in diabetes mellitus and hyperthyroidism. Dysphagia is a prominent symptom when the cardia is involved. Lesions in the fundus of the stomach are notorious for delay in diagnosis because gastrointestinal symptoms may not appear until late in the course and these may be largely of an obstructive nature due to impingement of the cardia. With an ulcerating lesion in the fundus, fever of unexplained etiology may be the presenting picture. A coincidental pyogenic gastritis may also ac-

count for fever in a few cases. Roentgen diagnosis is also least reliable in lesions in this location, and therefore repetition of such studies may be required.

When the lesion is in the antrum or near the pylorus, the symptoms of pyloric obstruction, notably vomiting, may occur quite early. The presence of obstruction at the pylorus with achlorhydria is almost always caused by carcinoma. The lesion may, in some of these cases, be amenable to curative surgery. Still simulating benign ulcer, the presenting syndrome may, on the one hand, be hematemesis, and, on the other, perforation of the stomach with acute peritonitis or intra-abdominal abscess. Although bleeding and perforation are statistically much more common in benign peptic ulcer, it is well to remember that cancer does have to be considered. It is, therefore, important for the surgeon to perform a biopsy in cases operated upon for perforation of the stomach even when the ulcer does not appear grossly to be neoplastic.

Unfortunately, the presenting finding may be a result of metastases from a gastric carcinoma. The common sites of metastasis in this cancer are the left supraclavicular lymph node (Virchow's node), the liver, the rectal cul-de-sac (rectal or Blumer's shelf), and the peritoneum (as evidenced by ascites or palpable abdominal masses). Less common are metastases to the ovaries (Krukenberg tumor), the nodes beneath the lateral edge of the left pectoralis muscle and deep in left axilla (Irish node), the skin, the umbilicus, and rarely the bones and lungs. Infrequently a clinical picture simulating subacute cor pulmonale as a result of lymphangitic pulmonary spread may occur.

Acanthosis nigricans, a condition characterized by areas of pigmentation and verrucous lesions occurring in yellowish, black, or brown streaks, is caused most commonly in the adult by gastric cancer and may be the presenting feature. Multiple or migratory venous thromboses (Trousseau's sign) are most commonly asso-

ciated with carcinoma of the body and tail of the pancreas, but may be caused by gastric carcinoma.

Pain in gastric cancer is also a variable factor. It is not unusual to see an emaciated patient with liver metastasis with no pain. Rivers¹¹ has presented the mechanisms of pain production in gastric cancer. Absence of pain occurs especially with achlorhydria and lack of inflammatory reaction. Pain may be mediated through the sympathetic nervous system by the splanchnic supply. The stimulus for this pain is spasm in the stomach wall caused by peristalsis in pyloric obstruction, irritation of the wall by hydrochloric acid, and an accompanying gastritis or inflammatory reaction. Metastatic invasion of the coeliac plexus may cause excruciating backache. The spinal sensory nerves, with branches to the parietal peritoneum, mesentery and retroperitoneal tissues, may be invaded by carcinoma. These pain impulses may be carried to the back, chest or anterior abdominal wall, areas also supplied by these nerves. This accounts for the shift of pain sometimes encountered from the epigastrium to these secondary areas. Pain in

the left lower chest or over the left shoulder tip occurs as the result of stimulation of the phrenic nerve by cancer in the fundus or metastases.

This review of the course of the clinical features of gastric cancer has emphasized the varied, changing patterns encountered from case to case. George Meredith⁷ put it more esthetically:

“But O the truth, the truth!
the many eyes
That look on it! the diverse
things they see.”

BIBLIOGRAPHY

1. WANGENSTEEN, O. H.: J.A.M.A., 1947, 134, 1161.
2. WELCH, C. E., AND ALLEN, A. W.: New England J. Med., 1948, 238, 583.
3. ST. JOHN, F. B., SWENSON, P. C., AND HARVEY, H. D.: Ann. Surg., 1944, 119, 225.
4. SHERMAN, R. S.: J. Am. M. Women's A., 1948, 3, 136.
5. RIGLER, L. G.: J.A.M.A., 1948, 137, 1501.
6. COMFORT, M. W., KELSEY, M. P., AND BERKSON, J.: J. Nat. Cancer Inst., 1947, 7, 367.
7. RIGLER, L. G.: Radiology, 1943, 41, 187.
8. MCNEER, G.: Am. J. Roentgenol., 1941, 45, 537.
9. ENGEL, G. C.: J.A.M.A., 1947, 135, 687.
10. BOCKUS, H. L., AND OTHERS: Gastro-Enterology. Chap. 32. Carcinoma of stomach. Philadelphia: Saunders, 1944, 2, 645-88.
11. RIVERS, A.: Am. J. Digest. Dis., 1939, 5, 732.

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RECENT ADVANCES IN THE TREATMENT OF THE MALIGNANT DISEASES OF THE BLOOD-FORMING ORGANS*

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The past few years have witnessed a tremendous growth in the efforts toward the development of chemical agents which may be effective in the treatment of neoplastic disease. This has undoubtedly been stimulated by the striking success of the antibiotics against bacterial diseases, but is more fundamentally a reflection of progress in the basic sciences. The use of chemical and physical agents in the treatment of malignant disease is as ancient as medicine itself, but not until recent times, when the chemists and physicians were able to produce substances which were biologically effective, could the physician begin to explore the usefulness of these substances in the attack on cancer.

The ultimate objective of any therapy against a neoplastic disease is the total destruction or elimination of the malignant cells from the body. At present the only means whereby that may be accomplished is by the early complete surgical removal of a tumor while it is still limited to its

site of origin. Inasmuch as this approach cannot be applied to the malignant diseases of the blood-forming organs, more indirect methods have been sought.

In exploring the use of chemical or physical agents, the great difficulty has been to find an agent capable of destroying malignant cells without at the same time damaging the normal ones, particularly those that are continuously undergoing proliferation, such as the cells in the bone marrow, gastrointestinal tract, and reproductive organs. The biologic relationship between malignant and normal cells is so close that it is difficult to conceive how it may be possible to destroy one without also damaging the other. In spite of this almost insuperable handicap some progress has been made in the control of the malignant diseases under discussion.

The substances which are being used clinically at the present time in the treatment of the malignant diseases of the blood-forming organs are nitrogen mustard, urethane, radioactive phosphorus (P^{32}), the folic acid antagonists, and stilbamidine.

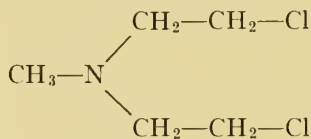
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NITROGEN MUSTARD

In 1917, when the German Army began to use mustard gas against the British troops, it was noted that, in addition to the vesicant action of the gas, marked systemic toxicity occurred, particularly leukopenia and depression of the bone marrow. With the advent of World War II the toxicity of the sulfur and nitrogen mustards was intensively studied by the Army Chemical Warfare Service and other research groups. It was found that when the mustards were put into solution at the pH of body fluids, they not only liberated chloride ions, but underwent an intramolecular change to form compounds (cyclic immonium cations) which were biologically highly reactive.

The effects of the mustards on cellular activity are strikingly similar to those of X-rays. The nucleus of the cell is the primary site of action, small doses of nitrogen mustard producing inhibition of mitotic division, and large doses disintegration of the nucleus. The precise mechanism by which these effects are produced is not yet fully understood, although it has been demonstrated that certain enzyme systems are inactivated, and anaerobic glycolysis and cellular respiration are depressed.¹

The particular nitrogen mustard compound which has been most widely used clinically is methyl bis (β -chloroethyl) amine:



The immediate toxic effects after administration of nitrogen mustard are (1) nausea and vomiting, which occurs between 1 and 8 hours after injection, and (2) local thrombosis and slough if the material is allowed to infiltrate outside the vein. The nausea and vomiting do not occur in all patients and may be mitigated by the intramuscular injection of 250 to 500 mg. of pyridoxine. The perivenous infiltration can be

avoided by injecting the solution of nitrogen mustard into the rubber tubing of a rapidly flowing intravenous infusion.

The delayed toxic effects are limited to the hematopoietic system. A fall in the white blood cell count, involving particularly the lymphocytes, occurs within 7 to 10 days, with a return to a normal level in 2 to 3 weeks. Although severe leukopenia has been observed in some cases, it is remarkable that no instance of "agranulocytic" infection has ever been noted. Thrombocytopenia occurs less commonly, but bleeding episodes have been seen only in patients who were markedly debilitated and in the terminal stages of their disease. The fall in the red blood cell count is small and usually not significant.

The "standard" dosage of nitrogen mustard is 0.1 mg. per kilogram of body weight intravenously per day, repeated for 4 days. This has been varied in individual cases up to a maximum total dose of 0.8 mg. per kilo.

The accumulated results of nitrogen mustard therapy in the malignant diseases of the blood-forming organs may be summarized as follows:

The most striking responses have occurred in Hodgkin's disease. Approximately 70 per cent of the patients treated show improvement, which is manifested by disappearance of fever, return of appetite and weight, improvement in well-being and strength, and reduction in size of lymph nodes. The duration of remission varies from 1 to 6 months, but on repeated treatment the remissions become shorter until finally the drug becomes no longer effective.

An excellent effect is also seen in cases of giant follicular lymphoblastoma, with disappearance of nodes for periods of 12 to 18 months. In lymphosarcoma and reticulum-cell sarcoma a good response may be obtained in the early phases of the disease, but in the later stages these tumors become unresponsive.

In the chronic myeloid leukemias a fall in the leukocyte count can be readily produced with nitrogen mustard, accompanied by clinical improvement, but the reduction in size of the spleen

is variable. Chronic lymphatic leukemia does not respond as frequently as the myeloid type, although in some patients great improvement is observed. No form of acute leukemia has been influenced by this drug, nor has any effect been seen in multiple myeloma.

Several cases of mycosis fungoides have been reported which have responded well to nitrogen mustard therapy.

URETHANE

In addition to its action as an anesthetic in laboratory animals, urethane has been known to have an inhibitory effect on cell division and a suppressive action on experimental tumors. Although the mechanism of action of urethane on cellular activity is still unknown, its use in patients was started in 1943. Since then, because of the ease of administration, it has been applied to the treatment of a variety of malignancies. Thus far it has been found to be effective only in chronic myeloid and lymphatic leukemia, multiple myeloma, and carcinoma of the prostate. In the acute leukemias and malignant lymphomas it has not been of any value.

The dosage of urethane is 3 to 5 grams per day, orally, until an effect on the blood count is obtained. The toxic effects are nausea and vomiting and leukopenia.

In chronic myeloid leukemia the leukocyte count can be controlled almost at will with urethane, with concomitant clinical improvement. Chronic lymphatic leukemia responds somewhat less well.

The effect of urethane in patients with multiple myeloma is often striking in amelioration of bone pain. However, it does not appear to influence the progress of the disease. The same is true of carcinoma of the prostate.

RADIOACTIVE PHOSPHORUS

P^{32} exerts its effect by becoming incorporated within the nucleus of the cell, producing intracellular irradiation. The usual dose is 4 to 7 milluries intravenously, which may be repeated in

1 to 3 months. The maximum therapeutic effect does not appear before 2 weeks and may be delayed for 6 months.

In chronic myeloid leukemia clinical remission, with a fall in cell count, rise in hemoglobin, and reduction in size of the spleen can be induced by radioactive phosphorus. However, the total duration of life in the patients who have been treated has not been prolonged. Chronic lymphatic leukemia does not respond as readily, but in many cases good results have been obtained. The bone pain associated with multiple myeloma has been relieved in the majority of patients. P^{32} has not been effective in other neoplastic diseases.

FOLIC ACID ANTAGONISTS

From clinical observations with folic acid Farber² and his associates noted that patients with acute leukemia appeared to be made worse when given this vitamin. This observation suggested that folic acid might be essential for leukocyte formation and hence led to the trial of synthetic compounds which physiologically inactivated folic acid. Using such folic acid antagonists Farber² has demonstrated that in about half of the cases of acute leukemia in children whom he has treated clinical and hematologic remissions have been produced. Eventually, however, the patients became refractory to therapy. In adults the results have been less striking.

Aminopterin is the most commonly used anti-folic acid agent. It is administered subcutaneously in doses of 0.5 to 1.0 mg. daily. The toxic manifestations are ulcerative stomatitis, alopecia, and bone marrow depression. Related substances which have been employed are a-methopterin and amino-an-fol. Adequate information regarding the effectiveness of these compounds in the malignant diseases other than acute leukemia is still lacking.

STILBAMIDINE

In the treatment of visceral leishmaniasis (kala-azar) stilbamidine and related compounds

have been used effectively. Since the serum globulin is increased in this disease and is also elevated in multiple myeloma, Snapper³ carried out a therapeutic trial with these drugs in patients with myeloma. He found that the bone pain was relieved in 80 per cent of his patients. An important part of the treatment is that the patients must be maintained on a diet low in animal protein.

also effective in relieving the bone pain of multiple myeloma, that drug is rapidly replacing stilbamidine in the treatment of this disease.

SUMMARY AND CONCLUSIONS

In table 1 are summarized the types of responses which have generally been observed with the agents described in the diseases under dis-

TABLE 1
Response to Therapeutic Agents

NEOPLASTIC DISEASE	NITROGEN MUSTARD	URETHANE	P ³²	AMINOPTERIN	STILBAMIDINE
Giant follicular lymphoblastoma	Excellent	Not known	Not known	Not known	Not known
Lymphosarcoma	Fair	Poor	Poor	Not known	Poor
Hodgkin's disease	Good	Poor	Poor	Poor	Poor
Reticulum cell sarcoma	Fair	Poor	Poor	Not known	Poor
Leukemia					
Chronic myeloid	Excellent	Excellent	Excellent	Poor	Poor
Chronic lymphatic	Good	Good	Good	Poor	Poor
Acute	Poor	Poor	Poor	Good	Poor
Multiple myeloma	Poor	Excellent	Poor	Not known	Excellent

The dosage of stilbamidine is 150 mg. intravenously daily for 20 days. This course may be repeated if improvement which has previously been produced begins to regress. A troublesome toxic effect of the drug is dissociated anesthesia of the sensory branches of the trigeminal nerve, characterized by numbness, heaviness and itching, which may develop 2½ to 5 months after completion of a course of therapy.

Although the clinical status of the disease does not appear to be altered by stilbamidine, the myeloma cells undergo a change which is evidenced by the formation of basophilic granules in the cytoplasm. The significance of these inclusion bodies, which are made up of ribose nucleic acid, is not yet clear. Observations in the leukemias, lymphosarcoma, and Hodgkin's disease indicate that they are not affected by stilbamidine therapy. Since, as stated above, urethane is

cussion. It should be emphasized at this time that X-ray therapy is still a very effective form of treatment in most of these diseases, and in many instances its use is indicated in preference to, or in combination with, the chemotherapeutic agents. However, these substances are often helpful in the management of patients with malignant diseases of the blood-forming organs, and their occasionally dramatic effectiveness fosters the hope that further research will make better material available to the physician.

BIBLIOGRAPHY

1. Approaches to Tumor Chemotherapy. Washington, D. C.: American Association for the Advancement of Science, 1947.
2. FARBER, S.: Some observations on effect of folic acid antagonists on acute leukemia and other forms of incurable cancer. *Blood*, 1949, **4**, 160.
3. SNAPPER, I.: Stilbamidine and pentamidine in multiple myeloma. *J. A. M. A.*, 1947, **133**, 157.

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CYTOLOGIC DIAGNOSIS OF MALIGNANT LESIONS

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In recent years a method has evolved for the early diagnosis of cancer which is based on the microscopic examination of body secretions and discharges for their cellular contents. The cells of these secretions have normal characteristics which become distorted by malignancy.

EVOLUTION OF CYTOLOGY

The cytologic method grew out of the original observations of many different workers, but the best known is Papanicolaou,¹ who for many years studied human secretions as well as the secretions of many different animals. His studies brought with them the relationships of varying cytology to cyclic changes within the body, particularly the menstrual cycle. These observations formed the basis for much of our modern knowledge.

The cytologic method as emphasized by practically all workers in the field utilizes a technic which is fundamentally an aid and additional evidence for the diagnosis of malignant disease. In some instances the method is sufficiently accurate to diagnose a malignant lesion beyond any question of doubt. In other cases the method is one which is used to give supportive information which is otherwise difficult or impossible to obtain without more radical procedures.

METHODS

The cytologic methods are comparatively simple. A general technic to be followed is:

1. Smear the secretion on glass slides with an applicator stick or wire loop. These should be relatively thick.
2. Before the material dries place in a solution of 50 per cent ethyl alcohol and 50 per cent ethyl ether. Adequate fixation requires 15 minutes in this solution.
3. Remove from the fixative and allow to dry.
4. Stain with hematoxylin and eosin stain or Papanicolaou's stain.²
5. Examine under low power of the microscope.

The secretions of the body now utilized are those of the respiratory tract, the gastrointestinal tract, and the genitourinary tract. Fluids removed from serous cavities have long been used for this diagnostic procedure. An additional material not frequently used is that of the spinal fluid.

The staining solutions vary. Papanicolaou's method consists of an eosin azure orange-G stain. It is a simple stain which can be completed within a matter of 5 or 10 minutes. Other workers have used Wright's stain, polychrome methylene blue,

and other variations of the eosin azure orange-G stain. Most pathologists use a hematoxylin and eosin stain, largely because of the fact that this stain is familiar to most workers in histologic technic. This stain has many advantages in its simplicity, and the advantages of its familiarity outweigh any possible disadvantage.

DIAGNOSIS OF VARIOUS LESIONS

Carcinoma of the lung. Diagnosis of carcinoma of the lung utilizes two different technics, examination of the sputum and bronchial washings. Woolner and McDonald,³ in order to overcome the degeneration of the cells on standing, have utilized a 70 per cent alcohol solution for collection of the sputum. They recommend a collection of 3 separate 24-hour specimens. Three different smears are made from each sputum specimen and examined. The examination of smears requires approximately 10 to 15 minutes apiece. The accuracy of diagnosis on the basis of smears of sputum alone varies, but in Woolner and McDonald's series of 325 cases an accuracy of approximately 70 per cent was found. The false positive error was less than 2 per cent, while the false negative error was approximately 30 per cent. Such an additional aid to the physical examination and X-ray film should narrow the error of diagnosis considerably. The bronchial washings are obtained by instilling 5 c.c. of saline into the suspected bronchus and recovering the material by aspiraton. After centrifugation the sediment is smeared and stained by hematoxylin and eosin.

The diagnosis of malignancy is not infrequently confused with tuberculosis and other chronic inflammatory diseases. Thorough examination of the secretions by bacteriologic means will eliminate the purely infectious diseases. The differentiation of benign lesions has not proven satisfactory by this technic. Most benign lesions do not produce much exfoliation. Metastatic carcinomas do not release cells to the bronchi unless they have actually eroded into a bronchus.

Diagnosis of malignant lesions of the trachea

and larynx and occasionally the esophagus and pharynx may be made from the cytologic method because of their exfoliative characteristics. Ultimately these cells are collected in the sputum and expectorated.

Gastric cancer. The diagnosis of carcinoma of the stomach can be made by cytologic methods. Graham, Ulfelder and Green⁴ have described a technic of collection of the gastric fluid for this diagnostic method. They obtain a fasting specimen of gastric secretion by the stomach tube. The material collected is centrifuged as soon as possible and smears made on glass slides, fixed in a mixture of ethyl alcohol and ethyl ether for 10 or 15 minutes and stained by hematoxylin and eosin or the Papanicolaou method. These authors found the method to be accurate in 62.5 per cent of the cases. Early carcinomas apparently yield better results than the more advanced type. This feature alone greatly enhances its value.

Genitourinary carcinoma. The examination of urinary sediment for carcinoma cells has also received more attention in recent years. The technic generally used at the present time is centrifugation of an adequate sample of urine. The sediment is then smeared over a glass slide which has previously been covered with egg albumin. The egg albumin is necessary in most instances because of the lack of material in the sediment to fix the sediment to the slide. These slides are fixed with an ether alcohol mixture and stained with Papanicolaou's method or the hematoxylin and eosin technic. Daut and McDonald⁵ have used Sudan stain on fresh smears to facilitate the diagnosis of the lipid content of malignant cells. This method has aided considerably in the diagnosis of carcinoma of the prostate or of hypernephroma.

Not infrequently cells from the urinary bladder can be found by this technic, and the diagnosis of a papillary carcinoma of the bladder can be made. These technics are not to supplant the methods of diagnosis already used but should facilitate the diagnosis when a tumor exists in

a portion of the genitourinary tract difficult to visualize. Whenever renal distortions are found on X-ray examination, considerable help may be obtained by examination of the urinary sediment for such tumors.

Uterine carcinoma. Papanicolaou's original work on the cytologic diagnosis of cancer was done on uterine tumors. He discovered early that cancer could be detected in the smears made from vaginal and cervical secretions. The techniques used today vary considerably but all utilize the same principle. The simplest technic of all is that of a vaginal smear made from material aspirated from the cul-de-sac. These smears can be made from any female patient regardless of age or size of the vaginal orifice. A thin aspirating tube is inserted into the vagina and the aspirating bulb is released. The material aspirated is distributed on smears, fixed in the alcohol-ether mixture for 10 or 15 minutes, and stained with Papanicolaou's stain or the hematoxylin and eosin stain.

This method is satisfactory, but smears made from the cervix itself are more accurate in that they eliminate the dilution factor. At the present time wooden spatulas are manufactured for this particular purpose. These spatulas can be inserted into the vagina, and with visual control scrapings of the cervical os and the external lip can be made. This material is then smeared upon a slide and fixed in an alcohol-ether mixture. Other techniques can be used. For intrauterine carcinoma a thin aspirating tube can be inserted through the cervical os, or a small applicator stick can be inserted into the os and scrapings taken from the wall. The smears thus made can be stained and examined as previously described.

These techniques have greatly increased the ability to diagnose cancer early and have impressed many physicians that carcinoma can exist for an extended period prior to the time a clinical cancer actually exists.

A condition which has been made more impressive by cytologic diagnosis is that of intra-epithelial carcinoma of the cervix, otherwise termed carcinoma in situ of the cervix. This con-

dition is one in which the epithelial proliferation has an extremely active character but has not assumed invasive qualities. It has occasionally been confused by the inexperienced with squamous metaplasia of the endocervix. However, carcinoma in situ has been thoroughly described. This condition is believed to be a precursor of invasive carcinoma and in a number of instances has been shown to subsequently invade the cervical tissue. The period between inception of carcinoma in situ and the time of actual invasion varies considerably. Pund and his group⁶ believe that carcinoma in situ occurs anywhere from 2 to 10 years prior to invasive carcinoma. In their large series of cases they found that the average age of cancer patients had been reduced from 45 to 35 years. This contribution of cervical cytology has great potentialities and will in the future become more and more valuable in the early diagnosis of cancer, since this early diagnosis will facilitate the surgical removal of these cervixes prior to the time that any local extension has occurred. The fact that Howard and his group⁷ have found the incidence of carcinoma in situ to be 3 per cent is a strong argument in favor of frequent cytologic examination of the cervical secretion in women over the age of 35 years.

Methods of reporting smears differ when different pathologists examine the specimens. Papanicolaou's original method of reporting is still used by him and is followed by the Memorial Hospital in New York. This method consists of grading the slides according to 5 different classifications. Grade I is a negative report; grades II, III and IV are suspicious, the most suspicious being grade IV, and grade V is a definitely positive smear. This differentiation of the suspicious smears is made to designate how frequently these patients should be rechecked. Other pathologists have simplified this method of reporting and report simply as negative, suspicious, or positive. Regardless of the method of reporting, certain definite procedures should be followed after such reports have been obtained. Negative reports do not necessarily mean that there is no cancer present, since the possibility of a poor

sample always exists. However, if adequate samples are taken and a negative smear results, the possibility of a malignant lesion being present is relatively slight. If a smear is described as suspicious, the conclusion must not be drawn that cancer exists. Many hyperplastic lesions produce exfoliation of abnormal cells which under the microscope have some of the characteristics of malignant cells. These, however, do not carry all the qualifications of malignant cells and hence they are termed suspicious rather than clearly positive. In such cases repeated examinations should be made. The suggestion has been made that when no visible lesion exists examination should be made every 3 months unless the smear becomes negative. If the smear becomes negative only the routine recheck is indicated.

In cases of positive reports certain definite procedures should be followed. Confirmation should be obtained by repeated smears and punch biopsy of suspicious areas. This can usually be carried out in the office by a physician with adequate experience. The diagnosis is thus readily and quickly made. However, where a negative biopsy results, one should not discount the positive smear as merely a false positive test. Carcinoma in its early stages is limited to small areas of the cervical surface, and only in its actively invasive stage does it involve the entire cervical os. If repeated smears are positive and the biopsy negative, conization of the cervix should be done with a cold knife. This specimen should be thoroughly sectioned and examined microscopically. If necessary, serial sections should be made. When active carcinoma is found, hysterectomy should then be performed. If positive smears have been obtained on several occasions and there is no room for doubt about the accuracy of the diagnosis, hysterectomy may be performed without biopsy. Early action on positive findings from cervical cytologic examinations cannot be overemphasized, because in the pre-clinical stages carcinoma of the cervix is curable, whereas in the later stages when visible lesions are present favorable results are much fewer.

Paracentesis fluid. The examination of the

fluids removed by abdominal paracentesis, thoracentesis, or paracentesis of joints can readily be utilized for cytologic technics. The material removed should be obtained fresh and sent to the laboratory in some anticoagulant, preferably a sodium citrate solution. In the laboratory the material should be centrifuged at high speed and the supernatant fluid poured off; smears should then be made from the sediment, egg albumin being used for fixing the material to the slide. Fixation should be accomplished in the ether-alcohol mixture and stained by either the Papanicolaou method or the hematoxylin and eosin technic. This material can be examined also by the use of buttons of the sediment material after having been treated by histologic methods. In most instances the diagnosis will be readily made as to whether or not any malignant cells are present.

Central nervous system. Cytologic technics can also be applied to spinal fluid and material removed from necrotic areas in the brain or spinal cord. The spinal fluid should be handled in the same manner as paracentesis fluid, and smears should be fixed and stained according to the technic desired. Material from the brain can be utilized in smear,⁸ fixed, stained, and examined for abnormal cytologic configuration. These technics are somewhat more difficult to identify, but in the hands of trained observers can be utilized to advantage.

CONCLUSIONS

Examination of the cellular contents of body fluids has become a method of proven value in the diagnosis of cancer.

The technic should be utilized only with the full realization of its limitations.

It should not be used as a substitute for histologic diagnosis, but in conjunction with it and as an adjunct to other accepted procedures of clinical and pathologic diagnosis.

The use of inexperienced examiners for the diagnosis of cytologic preparations should be discouraged. Lack of confidence and repudiation of the technic can only result from such a practice.

(Bibliography on page 558)

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THE IRRADIATION TREATMENT OF CARCINOMA OF THE CERVIX*

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Washington

The relatively high incidence of carcinoma of the cervix along with the uniformly satisfactory results that can be obtained in its early stages by adequate treatment make this disease of paramount importance.

It is the most frequently encountered malignant lesion of the female generative system. The greatest number of cases are seen in women over 40 years of age, although a surprisingly large number of younger women have the disease, 5 per cent below 30 years of age and about 20 per cent between 30 and 40.

The end-results are essentially the same in the two pathologic types of the disease, namely epidermoid and adenocarcinoma. The pathologic grading as to the degree of malignancy influences very little the ultimate outcome. The all-important factor, as far as curability is concerned, is the clinical stage of the disease. In this classification there are 4 stages: Stage I represents the very earliest lesions and includes only those below 2 cm. in diameter that are confined to the external lip of the cervix. Stage II consists of

lesions greater than 2 cm. in diameter which involve the cervix only or of endocervical lesions which have not extended into the body of the uterus. Stage III concerns the lesions that have extended into the vagina or parametrium but not beyond. Stage IV comprises the extensive cases with generalized pelvic involvement resulting in a frozen pelvis or cases with metastasis whether local or distant or with rectovaginal or vesicovaginal fistulae.

The percentage of cures in clinical stage I carcinoma of the cervix is higher than in any other major type of malignant lesion. This makes it all the more important to make an early diagnosis. In the past, however, this unfortunately has not been the case; in the majority of cases the disease is fairly well advanced before medical aid is sought.

The failure of these people to seek medical attention early in the course of the disease is due chiefly to 5 reasons, each of which, for the most part, can be overcome by a proper lay educational program stressing the necessity for periodic medical checkups.

Reason number one is that the disease is usually very insidious and gives no symptoms until

* From the Radiological Clinic of Drs. Groover, Christie and Merritt and the Radiation Therapy Section of Doctors Hospital, Washington, D. C.

it is fairly well advanced. This could be entirely obviated by adequate periodic checkups.

Reason number two is the inherent fear of cancer held by so many people. It should be possible, through proper education, to completely erase this stigma from the minds of women as far as carcinoma of the cervix is concerned. The percentage of cures in the early stages of this disease is most satisfactory and is better than in many nonmalignant medical diseases about which no such morbid dread is entertained.

Reason number three is the fact that this disease occurs so frequently in women around the climacteric. The irregular bleeding occasioned by the disease is frequently mistaken for irregular bleeding of the menopause. Proper education and periodic checkups, however, should completely eradicate this handicap.

Reason number four is that a great number of women in the past have not known where to turn for a thorough medical checkup. Since they have always been quite healthy, they have made no direct medical contacts. With the birth of the cancer detection clinics this reason is no longer a legitimate one; now most of the accredited hospitals have such clinics in connection with them and this deterrent to early diagnosis can be completely eliminated by the simple expedient of publicizing their existence and facilities.

Reason number five is the fact that until recently there was no simple accurate method that could be used routinely to diagnose the early stage of the disease. A definite percentage of these very early lesions cannot be detected by inspection and palpation, which precludes accurate results from our conventional localized biopsies. The advent of the smear test has been a real contribution and for the most part has corrected this inadequacy.

The original treatment of carcinoma of the cervix was by surgery. The results were quite discouraging, however, and with the introduction of radium about 1911 the treatment of this disease soon became one for radiant energy. X-

ray therapy became practical about 1920, and since that date the conventional treatment has been by either radium or X-rays or a combination of the two.

In the early days, due to cumbersome equipment and inadequate knowledge of the physics of radium and X-rays, the treatment of the condition by these methods was nothing to be proud of. Each year, however, has seen an increase in understanding of the physics of these two agents, and at present this aspect is practically an open book. Rapid strides have also been made in the development of both radium applicators and flexible, practical, high voltage X-ray machines.

At first the biologic effect of radiant energy was likewise poorly understood, a terrific handicap. As the years have passed this too is being overcome. From the added information gained regarding this aspect of the work has evolved the fractional, multiple-port method of treatment which has definitely enhanced the percentage of cures. Progress in all phases of this work will continue for many years and with each improvement a perceptible increase in the 5-year curability rate can be expected.

In the treatment of carcinoma of the cervix by radiant energy we have at our command 3 sources of irradiation: radium element, radium emanation (radon), and X-rays. The radium and radon may be used either interstitially or in the form of surface applicators. Every case is an individual therapeutic problem, and there is no rigid rule-of-the-thumb formula applicable to all cases. The combinations of irradiation and the dosage of each depend entirely on the size and location of the lesion. In clinical stage I it is very important to irradiate the entire cervical and uterine cavities as well as the intravaginal portion of the cervix and the areas immediately surrounding it. The cervical area should receive twice the amount given the uterine body. This can be accomplished by several methods. One is to have twice the amount of radium in the cervical portion of the applicator than is in the uterine portion. A second method is to supple-

ment the intracavitary radium by radium either in the form of surface applicators placed against the cervix or used interstitially. A third method, and the one we prefer, is to supplement the intracavitary radium with intravaginal X-ray therapy. The chief reason we use the intravaginal X-ray approach is that by this method both the cervix and parametrial areas are thereby treated. When intravaginal therapy is not used, additional radium must be given through multiple intravaginal fields in order to deliver the necessary amount of irradiation to the parametrium.

In intrauterine use of radium the length of the applicator and the amount of radium used depend entirely upon the depth of the uterine cavity, and both vary in each case. A great number of physicians, fortunately not radiologists, blindly insert a capsule of radium into the cervical canal for a specified length of time and feel they have given adequate treatment. The same capsule and the same amount of radium are used in each case. This is very poor and inadequate treatment. If one is to treat this disease the proper type of adjustable applicator and the radium in the properly sized needles filtered through at least $\frac{1}{2}$ mm. of platinum should be available.

The most important thing in the treatment of this disease is to give adequate dosages of radium and X-rays during the initial course of treatment. In clinical stages I and II usually a combination of radium and X-ray therapy is indicated, whereas in stages III and IV usually X-ray therapy alone is used.

The results in clinical stages III and IV have been quite disappointing. During the past year Dr. Milton Friedman of New York has been using multiple ports covering the entire circumference of the bony pelvis. In the average case from 14 to 16 portals are used with each portal receiving an external dose of 2,000 r. This means a total external dosage in the neighborhood of 30,000 r, which insures about 6,000 r to the lesion. It requires a goodly amount of time to properly map out and mark these fields, but it

is well worth it since the results to date have been most gratifying.

The 5-year results to be expected from irradiation therapy in each of the 4 clinical stages of the disease are as follows:

Hynes' figures¹

	<i>Per cent</i>
Clinical Stage I	87.5
Clinical Stage II	67.0
Clinical Stage III	42.0
Clinical Stage IV	9.0
All stages	51.0

Simpson and Breed's figures²

	<i>Per cent</i>
Clinical Stage I	83.3
Clinical Stage II	79.0
Clinical Stage III	36.6
Clinical Stage IV	3.0
All stages	42.4

The percentages in stages III and IV will unquestionably be appreciably increased with the multiple port method of X-ray therapy briefly outlined above.

In recent years radical surgery for the treatment of clinical stage I carcinoma of the cervix has been revived by some surgeons.³ The operative mortality rate now is practically nil due to the marked advances in anesthesia during the past decade, but even so I have seen no 5-year results from this method to equal those from irradiation therapy. Until they are forthcoming, I believe the treatment of this disease is very definitely a radiologic problem. The tendency among some surgeons is to limit their operation to a simple pan-hysterectomy, which I feel is inadequate. Irradiation therapy in every case can destroy the primary cervical lesion in a much simpler and less disabling manner. The radiologic failures are due to an extension of the disease beyond the cervix, and if surgery is to produce end-results superior to those from radiant energy it must of necessity be quite radical.

Many of the cervical lesions are secondarily infected, and it is quite important to eradicate this before extensive radium therapy is instituted. Penicillin, both locally and intramuscularly, and

other local antiseptics are very efficacious. In some cases it is often advisable to administer the X-ray portion of the treatment before using radium in order to decrease the size of the lesion and to clear the infection before proceeding with radium.

Any method directed at the eradication of malignant disease must be radical in nature. This holds true for the irradiation therapy of the disease under discussion. It is definitely a radical procedure, and there are certain reactions that occur during and after treatment, such as cystitis, proctitis, nausea, etc. For the most part, however, these are quite temporary and are certainly no more numerous or permanent than those encountered with other forms of treatment. In fact,

the end-result in patients with this disease treated by irradiation is much more nearly a normal one physiologically than from any other accepted method. The objectionable side-effects of this form of treatment are more than compensated for by the approximately 90 per cent 5-year cures in clinical stage I, and it is my conviction that this percentage will be definitely increased within the very near future.

BIBLIOGRAPHY

1. HYNES, J. F.: Cancer of cervix uteri. *Am. J. Roentgenol.*, 1948, **60**, 368.
2. SIMPSON, F. E., AND BREED, J. E.: Radon treatment of cancer of cervix uteri. *Ibid.*, 1948, **60**, 382.
3. MEIGS, J. V.: Radical operation for carcinoma of cervix. *Ibid.*, 1947, **57**, 679.

CANCER STATISTICS—DISTRICT OF COLUMBIA

(Continued from July issue)

TABLE 5

Cancer Deaths by Occupation of Decedent and by Race and Sex in the District of Columbia, 1948

	WHITE			COLORED			WHITE AND COLORED
	M.	F.	Total	M.	F.	Total	Total
None.....	37	50	87	39	62	101	188
Professional persons self employed.....	7	3	10	—	—	—	10
Professional persons employed by others.....	32	9	41	1	2	3	44
Proprietors, managers and officials.....	12	3	15	—	1	1	16
Clerks and kindred workers (white collar).....	29	57	86	6	7	13	99
Salesmen and saleswomen.....	21	5	26	3	—	3	29
Skilled labor.....	73	2	75	26	7	33	108
Laborers.....	17	2	19	56	4	60	79
Servant classes, private.....	—	6	6	1	22	23	29
Servant classes, public.....	3	3	6	2	—	2	8
U. S. Army.....	24	2	26	—	—	—	26
U. S. Navy and Marines.....	1	—	1	—	—	—	1
Nurses, registered or other.....	—	7	7	—	1	1	8
Students.....	5	1	6	—	1	1	7
Housewives.....	—	268	268	—	49	49	317
Religious workers.....	2	—	2	1	—	1	3
Operators of motor cars.....	6	—	6	4	—	4	10
Retired.....	108	38	146	12	3	15	161
Unemployed.....	16	—	16	7	1	8	24
Firemen and Police.....	2	—	2	1	—	1	3
Other.....	1	—	1	—	—	—	1
Unknown.....	15	6	21	1	2	3	24
Not reported.....	24	37	61	24	15	39	100
Totals.....	435	499	934	184	177	361	1295

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MALIGNANT NEOPLASMS OF THE CENTRAL NERVOUS SYSTEM

PART ONE

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In the past the knowledge of the existence of a tumor in the central nervous system, especially the brain, resulted in despair on the part of the physician, not to speak of the patient. This once caused Foster Kennedy to write, "He who cares for patients suffering with brain tumor must bring to his problem much thought and stout action. There is need also of a formidable optimism, for the dice of the gods are loaded." However, times have changed and modern techniques now make it possible to diagnose the presence of these growths at an earlier stage, thereby rendering their treatment a far easier task. The key to the diagnosis of space-occupying lesions in the intracranial cavity and spinal canal still rests on the history and the neurologic examination. However, certain accessory procedures are available for confirming the presence of such lesions. In the case of tumor of the brain, pneumography, cerebral angiography, and to a lesser extent, electroencephalography, may be utilized for locating the exact situation of the growth. For tumor of the spinal canal, the Queckenstedt test, chemical studies of the spinal fluid, and contrast studies of the spinal canal with opaque

oils are used for verifying the lesion. The risk of surgical treatment of tumor of the brain or spinal cord has been materially lessened by virtue of improved methods of anesthesia and hemostasis together with the availability of blood and blood substitutes to combat shock. The radiologist too has been afforded a greater scope in treatment due to a better understanding of the biology of these neoplasms.

TUMORS OF THE BRAIN

SYMPTOMS AND SIGNS

Generally speaking, the symptoms and signs of tumor of the brain are of two categories, i.e., regional or those due to increased intracranial pressure. The position of the growth in the intracranial cavity determines which set of symptoms and signs begins first. Tumors so situated as to produce obstruction of the ventricular system only in the late stage are apt to give rise to regional signs in the beginning and pressure symptoms afterwards. On the other hand, growths arising in or near the cerebral ventricles cause block of the ventricular system early and

therefore give rise to pressure symptoms and signs initially.

Regional signs vary depending on the area of the brain in which the growth is situated. Tumor of the frontal lobe, especially the left, produces disturbances in the personality. Symptoms such as emotional instability, apathy, loss of memory, and carelessness in personal habits predominate with these lesions. A neoplasm in the temporal lobe may cause the patient to experience hallucinations in smell and hearing. Such individuals may complain of repulsive but nonexistent odors about them, or sometimes they hear imaginary noises such as the tinkling of a bell, etc. Patients with a growth in the temporal lobe may also experience transient sensations of being in a dream state, feeling as though they were projected into another world. A tumor arising in the parietal lobe may result in transient episodes of numbness and tingling involving the opposite side of the body. Such attacks have been termed sensory epilepsy. In the occipital lobe a lesion may betray its presence by visual hallucinations or by a contraction of the visual fields on one side. Neoplasms located in or near the motor area at the junction of the frontal and parietal lobes cause progressive paralysis of the limbs on the opposite side. The earliest symptom of a mass in this area may be the onset of a focal or a generalized convulsion. Whenever focal epilepsy occurs as an isolated symptom, tumor of the brain should be thought of first. It might also be added that whenever generalized convulsions appear for the first time in an adult, intracranial neoplasm should be suspected. Instead of a progressive paralysis, a brain tumor sometimes causes a sudden hemiplegia which is mistakenly ascribed to a vascular hemorrhage or thrombosis. When the growth develops in the cerebral hemisphere on the dominant side, symptoms of aphasia appear. The patient has difficulty in getting his words out even though he knows what he wants to say. At other times, the disturbance in speech may be reflected as a difficulty in understanding what is said to him or by

an inability to read or write. The cerebellum contains the major centers for coordination of the trunk and extremities. A growth in this area often manifests itself by a difficulty in gait and especially by clumsiness of the extremities on the homolateral side. Fine movements of the hands may be lost, and the patient finds it impossible to carry out such simple maneuvers as buttoning his clothes. Intention tremor and pass-pointing are characteristic of lesions in the cerebellum.

When the tumor arises within the ventricles or nearby them, the circulation of the spinal fluid becomes obstructed and headache develops. As the pressure increases the headaches become progressively worse and nausea and vomiting ensue. At this time examination of the eye-grounds will usually reveal the presence of papilledema. As the obstruction continues the patient becomes drowsy and finally comatose. If the block in the ventricular system develops slowly, the brain may accommodate itself for a while to the increased pressure and afford time for the appearance of a few regional symptoms. This is typically the case with tumors in the fourth ventricle where symptoms of partial obstruction occur early and are later followed by cerebellar signs. When regional signs develop first, as with a neoplasm in the cerebral hemisphere, signs of increased intracranial pressure appear sooner or later. By this time the patient may be severely impaired with neurologic defects in addition to suffering from the increased pressure.

DIAGNOSIS

In the majority of cases an accurate history and a careful neurologic examination will establish the diagnosis of an intracranial neoplasm. Certain additional procedures are utilized to confirm the diagnosis as well as to localize the mass within narrow limits. Accurate localization is a necessity before surgical treatment can be undertaken.

Lumbar puncture is done to determine the degree of intracranial tension. If regional signs

alone are present, the pressure of the fluid in the spinal canal may be normal or only slightly elevated. However, when papilledema is present, a marked elevation of pressure is to be expected. Under these circumstances the sudden removal of significant amounts of spinal fluid is dangerous. All patients suspected of harboring a brain tumor should have a careful measurement of the visual fields. Defects in the peripheral visual fields are to be expected when the growth is situated near the optic chiasm or in the temporal, parietal, or occipital lobes. Plain X-ray films of the skull are routinely made in order to detect abnormal calcifications or destruction of the inner table by a tumor. Such studies may also disclose erosion of the clinoid processes either from increased intracranial pressure or from a tumor impinging on them.

The injection of air into the cerebral ventricles is a particularly useful measure for demonstrating the presence of an intracranial mass. Injection of air by the spinal route, termed *encephalography*, is used in cases where there is no elevation of pressure. In the presence of increased intracranial pressure the air is injected directly into the ventricles through burr holes made in the calvarium; this method is called *ventriculography*. Following the air studies the X-ray films may demonstrate characteristic deformities in the ventricular outline suggesting the location of the tumor. In recent years cerebral angiography with diodrast or thorotrast has been developed as a method for the diagnosis and localization of these lesions. This procedure involves injection of the internal carotid or the vertebral artery with the dye while simultaneous X-ray films of the intracerebral circulation are being made. Generally speaking, cerebral angiography is not as accurate as cerebral pneumography for locating these growths. This is especially true when the lesion is situated in the posterior part of the cerebral hemisphere or in the cerebellum. Electroencephalography is coming into more prominence as a diagnostic aid in cases of suspected brain tumor. By this technic a record is made

of the electrical activity over the surface of the cerebral hemisphere. Its usefulness is limited to those cases in which the mass is situated on the surface of the hemisphere or close to it. More recently, intravenous injection of a dye called fluorescein has been found to be of value for delimiting these growths at the time of operation. The dye has a tendency to accumulate within the substance of the tumor, leaving the surrounding brain relatively free of it. By examining specimens of tissue under ultraviolet light the surgeon can define the limits of the growth. Recent investigators in a number of clinics have reported favorably on the use of radioactive diiodofluorescein and radioactive phosphorus as a method of locating a tumor in the brain. These substances have a tendency to accumulate in varying concentrations within the growth, and by the use of a Geiger counter the exact situation of the mass can be established. However, this procedure requires a large amount of special equipment so that in most clinics it has not come into general use.

PATHOLOGIC CONSIDERATIONS

About half of all intracranial neoplasms are malignant. Practically all of them arise from cells forming the glial matrix in the brain. They grow by direct extension and in most cases cause destruction of the brain by direct invasion. In the adult most malignant tumors arise in the cerebral hemisphere, whereas in children the majority begin in the cerebellum.

Astrocytoma is the commonest malignant tumor and constitutes about 45 per cent of these growths. It is composed of astrocytes and grossly has the appearance of a firm, yellowish mass. It grows slowly and is often so discrete as to give the mistaken impression of being encapsulated. The average survival period of patients with this tumor is 75 months. Although it may appear either in the cerebral hemisphere or in the cerebellar hemisphere, only in the former region is it considered to be malignant.

Glioblastoma multiforme constitutes about 30 per cent of the primary malignant growths in the brain. As its name indicates, the tumor is composed of a variety of cells. It is highly malignant. Grossly the mass is yellowish or cream-colored and often blends with the surrounding brain to such an extent as to make delineation impossible. The average survival period is about 10 months. It is a rapidly growing neoplasm and after arising in one cerebral hemisphere, it may cross the corpus callosum to involve the opposite hemisphere. It occurs almost exclusively in adults in the prime of life.

Medulloblastoma comprises about 10 per cent of these primary malignant growths. It occurs exclusively in the cerebellum and is found only in children. The tumor is composed of embryonic cells which arise from the roof of the fourth ventricle. After filling the ventricle the mass gradually invades the cerebellum. Sometimes cells from the neoplasm break off and become seeded along the subarachnoid space of the posterior fossa and the spinal canal.

Miscellaneous growths are the polar spongioblastomas, the ependymomas, and the oligodendrogliomas. Together they constitute about 15 per cent of the glial tumors in the brain. Polar spongioblastomas arise in the brain stem and produce extensive destruction of the nuclei of the cranial nerves. They are slow-growing and occur most commonly in young adults. Due to their location they are not amenable to direct surgical treatment. Ependymomas arise from the lining of the cerebral ventricles. When such a growth begins in the fourth ventricle it causes ventricular obstruction early. An ependymoma in the lateral ventricle may remain relatively silent for a long time before causing symptoms. Oligodendrogliomas occur in the cerebral hemisphere and are slow-growing neoplasms which often become calcified.

Cancer of the lung, breast, thyroid, kidney, testis or melanoma frequently metastasize to the brain. As a rule, these secondary tumors cause

very little reaction in the substance of the brain and when extirpated result in a surprisingly rapid recovery.

TREATMENT

The treatment of tumor of the brain may be divided into the surgical and radiologic phases. The object of surgical treatment is to remove as much of the tumor as possible without compromising the patient's life or increasing the neurologic disability already present. The relief of ventricular obstruction is also of primary importance, and this is especially true for tumors in the posterior fossa. The hazards of brain surgery have been materially reduced in recent years. For example, modern technics of anesthesia render it safe to carry these patients along for the lengthy periods sometimes required for the removal of these tumors. The loss of blood during operation, once a great hazard, has been reduced to a minimum with the use of electrocoagulation and hemostatic agents such as oxidized cellulose and fibrin foam. In cases in which bleeding during operation is necessarily excessive shock can be minimized by the administration of blood and plasma proteins.

In the majority of cases, following operation for a malignant tumor the patient is subjected to a course of X-ray therapy. The behavior of these growths is better understood now and a greater latitude in treatment with X-ray radiation is permitted. The most radiosensitive neoplasm is medulloblastoma. Tumor doses varying from 3,000r to 6,000r are routinely given. The potentialities regarding treatment with radioactive compounds are not yet known and there is the possibility that an entirely new field may be opened in the treatment of brain tumors with these compounds. Since the great majority of brain tumors are solitary growths, the problem is not like that with other types of cancer in which treatment must be directed to multiple lesions.

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